Exhibit No.___(AMM-1T)

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

TABLE OF CONTENTS

I. INTRODUCTION

Q. Please state your name and business address.

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

Q. In what capacity are you employed?

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

Q. Please describe your educational background and professional experience.

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

A. Overview

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

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

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

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

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

Q. How is your testimony organized?

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

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

In addition, I tested my recommendations for Avista against the results of alternative ROE benchmarks, including reference to applications of the traditional Capital Asset Pricing Model ("CAPM") and expected rates of return for electric utilities. Further, I corroborated my utility quantitative analyses by applying the DCF model to a group of low risk non-utility firms. Finally, my testimony addresses the impact of regulatory mechanisms on an evaluation of a fair ROE for Avista.

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

A. The ROE is the cost of attracting and retaining common equity investment in the utility's physical plant and assets. This investment is necessary to finance the asset base needed to provide utility service. Investors commit capital only if they expect to earn a return on their investment commensurate with returns available from alternative investments with comparable risks. Moreover, a fair and reasonable ROE is integral in meeting sound regulatory economics and the standards set forth by the U.S. Supreme Court in the *Bluefield*[1] and *Hope*[2] cases, a utility's allowed ROE should be sufficient to: 1) fairly compensate the utility's investors, 2) enable the utility to offer a return adequate to attract new capital on reasonable terms, and 3) maintain the utility's financial integrity. These standards should allow the utility to fulfill its obligation to provide reliable service while meeting the needs of

[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).

customers through necessary system replacement and expansion, but they can only be met if the utility has a reasonable opportunity to actually earn its allowed ROE.

B. Summary of Conclusions

Q. Please summarize the results of your analyses.

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

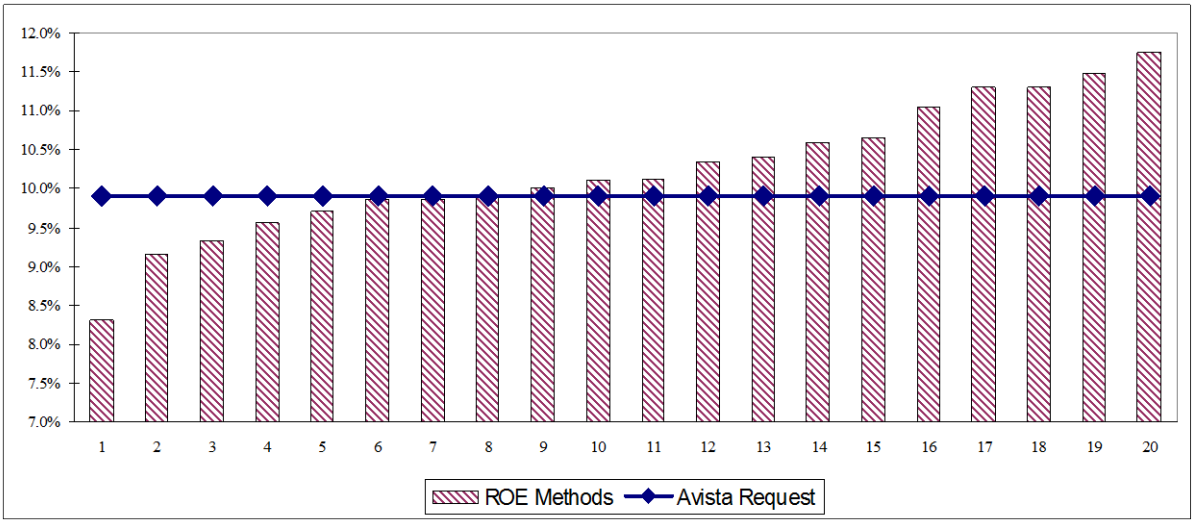
TABLE 1
SUMMARY OF RESULTS

	Average		Midpoint
DCF			
Value Line	9.2% [2]		10.1% [10]
IBES	9.9% [6]		9.9% [7]
Zacks	9.7% [5]		9.6% [4]
Reuters	10.0% [9]		9.9% [8]
Internal br + sv	8.3% [1]		9.3% [3]
Empirical CAPM - Historical Bond Yield			
Unadjusted	10.4% [13]		10.3% [12]
Size Adjusted	11.5% [19]		11.1% [16]
Empirical CAPM - Projected Bond Yield			
Unadjusted	10.7% [15]		10.6% [14]
Size Adjusted	11.8% [20]		11.3% [17]
Utility Risk Premium			
Historical Bond Yields	10.1%		[11]
Projected Bond Yields	11.3%		[18]
Cost of Equity Recommendation			
Cost of Equity Range	9.7%	--	10.9%
Flotation Cost Adjustment			
Dividend Yield	3.5%		
Flotation Cost Percentage Adjustment	3.6% 0.13%		
ROE Recommendation	**9.83%**	--	**11.03%**

Note: Footnotes correspond to rank order in the subsequent figure.

Figure 1, below, presents the 20 cost of equity estimates presented in Table 1 in rank order, and compares them with Avista's 9.9% ROE request:

FIGURE 1
RESULTS OF ANALYSES VS. AVISTA REQUEST



Q. What are your findings regarding the 9.9 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 9.9 percent is a conservative estimate of investors' required ROE for Avista. The bases for my conclusion are summarized below:

- In order to reflect the risks and prospects associated with Avista's jurisdictional utility operations, my analyses focused on a proxy group of 21 other utilities with comparable investment risks.
- Because investors' required return on equity is unobservable and no single method should be viewed in isolation, I applied the DCF, ECAPM, and risk premium methods to estimate a fair ROE for Avista;
- Based on the results of these analyses, and giving less weight to extremes at the high and low ends of the range, I concluded that the cost of equity for the proxy group of utilities is in the **9.7 percent to 10.9 percent** range, or **9.83 percent to**

11.03 percent after incorporating an adjustment to account for the impact of common equity flotation costs; and,

- As reflected in the testimony of Mark T. Thies, Avista is requesting a fair ROE of **9.9 percent**, which falls below the **10.43 percent** midpoint of my recommended range. Considering capital market expectations, the exposures faced by Avista, and the economic requirements necessary to maintain financial integrity and support additional capital investment even under adverse circumstances, it is my opinion that 9.9 percent represents a conservative ROE for Avista.

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

A. My recommendation is reinforced by the following findings:

- The reasonableness of a 9.9 percent ROE for Avista is supported by the need to consider the challenges to the Company's credit standing:
  - The pressure of funding significant capital expenditures of approximately $726 million planned for 2015-2016, and approximately $1.8 billion during the next five years heighten the uncertainties associated with Avista, especially given that the Company's existing rate base is approximately $2.5 billion;
  - Because of Avista's reliance on hydroelectric generation and increasing dependence on natural gas fueled capacity, the Company is exposed to relatively greater risks of power cost volatility, even with the Energy Recovery Mechanism ("ERM");
  - Historically, Avista was chronically unable to earn its allowed ROE due to the impact of attrition and regulatory lag. Avista's opportunity to actually earn a fair ROE and mitigate exposure to attrition is an important objective;
  - Widespread expectations for higher interest rates emphasize the implication of considering the impact of projected bond yields in evaluating the results of the ECAPM and risk premium methods; and,
  - My conclusion that a 9.9 percent ROE for Avista is a conservative estimate of investors' required return is also reinforced by the greater uncertainties associated with Avista's relatively small size.
- Sensitivity to financial market and regulatory uncertainties has increased dramatically and investors recognize that constructive regulation is a key ingredient in supporting utility credit standing and financial integrity;
- Providing Avista with the opportunity to earn a return that reflects these realities is an essential ingredient to support the Company's financial position, which ultimately benefits customers by ensuring reliable service at lower long-run costs;

- Continued support for Avista's financial integrity, including a reasonable ROE, is imperative to ensure that the Company has the capability to maintain and build its credit standing while confronting potential challenges associated with funding infrastructure development necessary to meet the needs of its customers.
- Regulatory mechanisms approved for Avista, including decoupling, are viewed as supportive by investors, but they do not warrant a downward adjustment to the Company's ROE:
    - The implications of revenue decoupling and other regulatory mechanisms are fully reflected in Avista's credit ratings, which are comparable to those of the proxy group used to estimate the cost of equity;
    - Because the utilities in my proxy group operate under a wide variety of regulatory mechanisms, including decoupling, the mitigation in risks associated with the ability to adjust revenues and attenuate the risk of cost recovery is already reflected in the results of my analyses, and no separate adjustment to Avista's electric or gas ROE is necessary or warranted.

These findings indicate that the 9.9 percent ROE requested by Avista is conservative, but reasonable and should be approved.

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

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

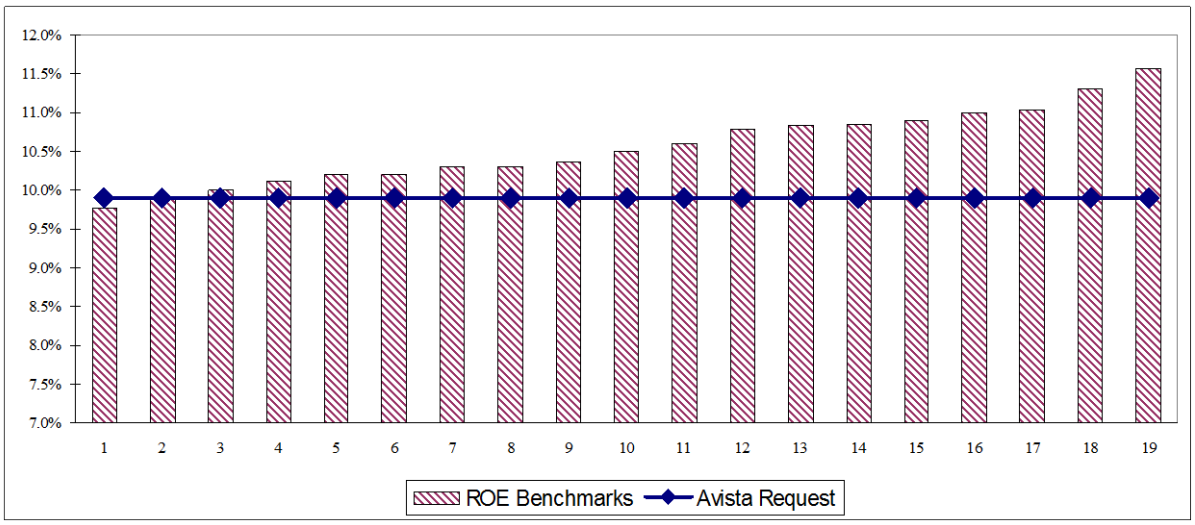
TABLE 2
SUMMARY OF ROE BENCHMARKS

	Average	Midpoint
CAPM - Historical Bond Yield		
Unadjusted	9.9% [2]	9.8% [1]
Size Adjusted	11.0% [16]	10.5% [10]
CAPM - Projected Bond Yield		
Unadjusted	10.2% [5]	10.1% [4]
Size Adjusted	11.3% [18]	10.9% [14]
Expected Earnings		
Industry	10.6% [11]	
Proxy Group	10.0% [3]	10.8% [12]
Non-Utility DCF		
Value Line	10.9% [15]	10.8% [13]
IBES	10.2% [6]	10.4% [9]
Zacks	10.3% [7]	11.0% [17]
Reuters	10.3% [8]	11.6% [19]

Note: Footnotes correspond to rank order in the subsequent figure.

Figure 2, below, presents these 19 alternative benchmark results presented in Table 2 in rank order, and compares them with Avista's 9.9% ROE request:

FIGURE 2
ALTERNATIVE ROE BENCHMARKS VS. AVISTA REQUEST



As summarized below, these results confirm the conclusion that the 9.9 percent ROE requested for Avista is conservative:

- Applying the traditional CAPM approach implied a current cost of equity on the order of 9.9% to 11.3%;
- Expected returns for electric utilities suggested an ROE range of 10.0% to 10.6%, excluding any adjustment for flotation costs; and,
- DCF estimates for a low-risk group of non-utility firms resulted in average cost of equity estimates of 10.2% to 10.9%.

These tests of reasonableness confirm that a 9.9% ROE falls in the lower end of the reasonable range to maintain Avista's financial integrity, provide a return commensurate with investments of comparable risk, and support the Company's ability to attract capital.

Q. What other factors should be considered in evaluating the ROE requested by Avista in this case?

A. Apart from the results of the quantitative methods summarized above, it is crucial to recognize the importance of supporting the Company's financial position so that Avista remains prepared to respond to unforeseen events that may materialize in the future. Recent challenges in the economic and financial market environment highlight the imperative of continuing to build the Company's financial strength in order to attract the capital needed to secure reliable service at a lower cost for customers; these challenges include interest rate risk, capital market volatility. The reasonableness of the Company's requested ROE is reinforced by the operating risks associated with Avista's reliance on hydroelectric generation, the higher uncertainties associated with Avista's relatively small size, and the fact that, due to broad-based expectations for higher bond yields, current cost of capital estimates are likely to understate investors' requirements at the time the outcome of this proceeding becomes effective and beyond.

Q. Does an ROE of 9.9% represent a reasonable cost for Avista's customers to pay?

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

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

A. Based on my evaluation, I concluded that a common equity ratio of 48.0 percent represents a reasonable basis from which to calculate Avista's overall rate of return. This conclusion was based on the following findings:

- Avista's requested capitalization is consistent with the Company's need to maintain its credit standing and financial flexibility as it seeks to raise additional capital to fund significant system investments and meet the requirements of its service territory;
- Avista's proposed common equity ratio is entirely consistent with the range of capitalizations for the proxy utilities and is in-line with the adjusted average equity ratios at year-end 2013 and based on Value Line's near-term expectations, respectively; and,
- The requested capitalization reflects the importance of an adequate equity layer to accommodate Avista's operating risks and the pressures of funding significant capital investments. This is reinforced by the need to consider the impact of uncertain capital market conditions, as well as off-balance sheet commitments such as purchased power agreements, which carry with them some level of imputed debt.

II. RISKS OF AVISTA

Q. What is the purpose of this section?

A. As a predicate to my capital market analyses, this section examines the investment risks that investors consider in evaluating their required rate of return for Avista.

A. Operating Risks

Q. How does Avista's generating resource mix affect investors' risk perceptions?

A. Because over 40 percent of Avista's total energy requirements are provided by hydroelectric facilities, the Company is exposed to a level of uncertainty not faced by most utilities. While hydropower confers advantages in terms of fuel cost savings and diversity, reduced hydroelectric generation due to below-average water conditions forces Avista to rely more heavily on wholesale power markets or more costly thermal generating capacity to meet its resource needs. As S&P has observed:

> A reduction in hydro generation typically increases an electric utility's costs by requiring it to buy replacement power or run more expensive generation to serve customer loads. Low hydro generation can also reduce utilities' opportunity to make off-system sales. At the same time, low hydro years increase regional wholesale power prices, creating potentially a double impact – companies have to buy more power than under normal conditions, paying higher prices.[3]

Investors recognize that volatile energy markets, unpredictable stream flows, and Avista's reliance on wholesale purchases to meet a significant portion of its resource needs can expose the Company to the risk of reduced cash flows and unrecovered power supply costs.

[3] Standard & Poor's Corporation, "Pacific Northwest Hydrology And Its Impact On Investor-Owned Utilities' Credit Quality," *RatingsDirect* (Jan. 28, 2008).

S&P has noted that Avista, along with Idaho Power Company, "face the most substantial risks despite their PCAs and cost-update mechanisms,"[4] and concluded that, "Northwest hydropower has been subject to significant volatility in recent years, so [Avista] is exposed to purchased power costs."[5] Similarly, Moody's Investors Service ("Moody's") has recognized that, "Avista's high dependency on hydro resources (approximately 50% of its production comes from hydro fueled electric generation resources) is viewed as a supply concentration risk (which also lends to the potential for metric volatility, especially since hydro levels, due to weather, is a factor outside of management's control."[6] More recently, S&P affirmed the importance of constructive regulation in light of the potential need "to purchase power for customers when hydro power is unavailable."[7] Avista's reliance on purchased power to meet shortfalls in hydroelectric generation magnifies the importance of strengthening financial flexibility, which is essential to guarantee access to the cash resources and interim financing required to cover inadequate operating cash flows.

Q. Do financial pressures associated with Avista's planned capital expenditures also impact investors' risk assessment?

A. Yes. Avista will require capital investment to meet customer growth, provide for necessary maintenance and replacements of its natural gas utility systems, as well as fund new investment in electric generation, transmission and distribution facilities. Utility capital additions are expected to total approximately $376 million for 2015, and $350 million for

[4] *Id*.
[5] Standard & Poor's Corporation, "Industry Report Card," *RatingsDirect* (Apr. 19, 2013).
[6] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 17, 2011).
[7] Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (May 9, 2014).

each of the years 2016 through 2019. This represents a substantial investment given Avista's current rate base of approximately $2.5 billion.

Continued support for Avista's financial integrity and flexibility will be instrumental in attracting the capital necessary to fund these projects in an effective manner. Investors are aware of the challenges posed by burdensome capital expenditure requirements, especially in light of ongoing capital market and economic uncertainties, and Moody's has noted that increasing capital expenditures are a primary credit concern for Avista.[8]

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

A. Yes. A firm's relative size has important implications for investors in their evaluation of alternative investments, and it is well established that smaller firms are more risky than larger firms. With a market capitalization of approximately $2.2 billion, Avista is one of the smallest publicly traded utilities followed by The Value Line Investment Survey ("Value Line"), which have an average capitalization of approximately $11.8 billion.[9]

The magnitude of the size disparity between Avista and other firms in the utility industry has important practical implications with respect to the risks faced by investors. All else being equal, it is well accepted that smaller firms are more risky than their larger counterparts, due in part to their relative lack of diversification and lower financial

[8] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 28, 2014).
[9] www.valueline.com (retrieved Jan. 10, 2015).

resiliency.[10] These greater risks imply a higher required rate of return, and there is ample empirical evidence that investors in smaller firms realize higher rates of return than in larger firms.[11] Accepted financial doctrine holds that investors require higher returns from smaller companies, and unless that compensation is provided in the rate of return allowed for a utility, the legal tests embodied in the *Hope* and *Bluefield* cases cannot be met.

B. Implications of Attrition

Q. What causes attrition?

A. Attrition is the deterioration of actual return below the allowed return that occurs when the relationships between revenues, costs, and rate base used to establish rates (e.g., using a historical test year without adequate adjustments) do not reflect the actual costs incurred to serve customers during the period that rates are in effect. For example, if external factors are driving costs to increase more than revenues, then the rate of return will fall short of the allowed return even if the utility is operating efficiently. These imbalances are exacerbated as the regulatory lag increases between the time when the data used to establish rates is measured and the date when the rates go into effect.

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

A. Investors are concerned with what they can expect in the future, not what they might expect in theory if a historical test year were to repeat. To be fair to investors and to benefit customers, a regulated utility must have a reasonable opportunity to actually earn a

[10] 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).
[11] See for example Rolf W. Banz, "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics* (September 1981) at 16.

return that will maintain financial integrity, facilitate capital attraction, and compensate for risk. In other words, it is the end result in the future that determines whether or not the *Hope* and *Bluefield* standards are met. S&P observed that its risk analysis focuses on the utility's ability to consistently earn a reasonable return:

> Notably, the analysis does not revolve around "authorized" returns, but rather on actual earned returns. We note the many examples of utilities with healthy authorized returns that, we believe, have no meaningful expectation of actually earning that return because of rate case lag, expense disallowances, etc.[12]

Similarly, Moody's concluded, "Fundamentally, the regulatory environment is the most important driver of our outlook, because it sets the pace for cost-recovery."[13]

Q. How is Avista proposing to address the Company's exposure to attrition?

A. As discussed in the testimony of Ms. Andrews, Avista has developed its proposed revenue requirement through an attrition analysis.

Q. Is it reasonable to consider the impact of Avista's exposure to attrition?

A. Yes. Setting rates at a level that considers the impact of attrition and allows the utility an opportunity to actually earn its authorized ROE is consistent with fundamental regulatory principles, as discussed in more detail by Ms. Andrews. The Supreme Court has reaffirmed that the end result test must be applied to the actual returns that investors expect

[12] Standard & Poor's Corporation, "Assessing U.S. Utility Regulatory Environments," RatingsDirect (Nov. 7, 2008).
[13] Moody's Investors Service, "Regulation Will Keep Cash Flow Stable As Major Tax Break Ends," *Industry Outlook* (Feb. 19, 2014).

if they put their money at risk to finance utilities.[14] That end result would maintain the utility's financial integrity, ability to attract capital and offer investors fair compensation for the risk they bear. Attrition will result in under-earning the allowed ROE if the impact of regulatory lag and rising capital requirements are ignored.

C. Outlook for Capital Costs

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

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

[14] *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.

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

A. Despite recent increases, the yields on utility bonds remain near their lowest levels in modern history. Figure 1, below, compares the December 2014 average yield of 4.70% on long-term, triple-B rated utility bonds with those prevailing since 1968:

FIGURE 1
BBB UTILITY BOND YIELDS – CURRENT VS. HISTORICAL

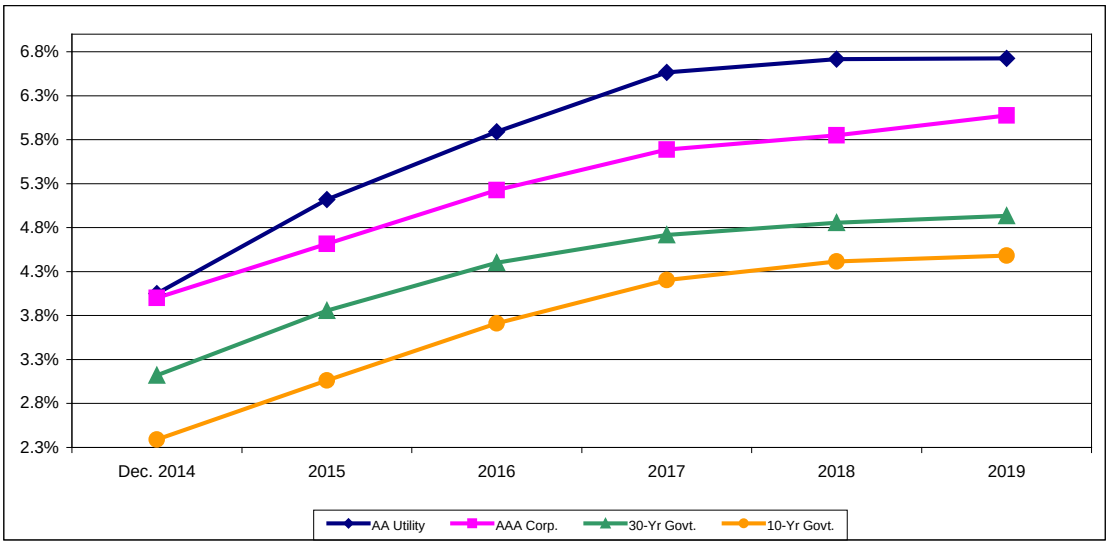
As illustrated above, prevailing capital market conditions, as reflected in the yields on triple-B utility bonds, are an anomaly when compared with experience over recent decades. Similarly, while 10-year Treasury bond yields may reflect a modest increase from all-time lows of less than 2.0%, they are hardly comparable to historical levels.[15] Federal Reserve President Charles Plosser recently observed that U.S. interest rates are unprecedentedly low, and "outside historical norms."[16]

[15] The average yield on 10-year Treasury bonds for the six-months ended December 2014 was 2.39%. Over the 1968-2014 period illustrated on Figure 2, 10-year Treasury bond yields averaged 6.75%.
[16] Barnato, Katy, "Fed's Plosser: Low rates 'should make us nervous'," CNBC (Nov. 11, 2014).

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

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

FIGURE 2
INTEREST RATE TRENDS



Source:
Value Line Investment Survey, Forecast for the U.S. Economy (Nov. 21, 2014)
IHS Global Insight, U.S. Economic Outlook at 79 (May 2014)
Energy Information Administration, Annual Energy Outlook 2014 (May 7, 2014)
Blue Chip Financial Forecasts, Vol. 33, No. 12 (Dec. 1, 2014)

These forecasting services are highly regarded and widely referenced. As evidenced above, there is a clear consensus expectation in the investment community that the cost of long-term capital will be significantly higher over 2015-2019 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 funds rate, it has also acted to end its monthly bond-buying program.[17] Elimination of the Federal Reserve's bond buying program should ultimately exert upward pressure on long-term interest rates, with The Wall Street Journal observing that:

> The Fed's decision to begin trimming its $85 billion monthly bond-buying program is widely expected to result in higher medium-term and long-term market interest rates. That means many borrowers, from home buyers to businesses, will be paying higher rates in the near future.[18]

While the Federal Reserve's tapering announcements and subsequent conclusion of its asset purchases have moderated uncertainties over just when, and to what degree, the stimulus program would be altered, investors continue to face ongoing uncertainties over future modifications that could ultimately affect how quickly and how much interest rates are affected.

Q. Does the Federal Reserve's cessation of further asset purchases mark a return to "normal" in the capital markets?

A. No. The Federal Reserve continues to exert considerable influence over capital market conditions through its massive holdings of Treasuries and mortgage-backed securities. Prior to the initiation of the stimulus program in 2009, the Federal Reserve's holdings of U.S. Treasury bonds and notes amounted to approximately $400 - $500 billion.

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[17] *Press Release*, Board of Governors of the Federal Reserve System (Oct. 29, 2014).
[18] Hilsenrath, Jon, "Fed Dials Back Bond Buying, Keeps a Wary Eye on Growth," *The Wall Street Journal* at A1 (Dec. 19, 2013).

With the implementation of its asset purchase program, balances of Treasury securities and mortgage backed instruments climbed steadily, and their effect on capital market conditions became more pronounced. Table 3 below charts the course of the Federal Reserve's asset purchase program:

TABLE 3
FEDERAL RESERVE BALANCES OF
TREASURY BONDS AND MORTGAGE-BACKED SECURITIES
(Billion $)

2008	$ 410
2009	$ 1,618
2010	$ 1,939
2011	$ 2,423
2012	$ 2,512
2013	$ 3,597
2014	$ 4,097

As illustrated above, far from representing a return to normal, the Federal Reserve's holdings of Treasury bonds and mortgage-backed securities now amount to more than $4 trillion,[19] which is an all-time high.

For now, the Federal Reserve is maintaining its policy of reinvesting principal payments from these securities – about $16 billion a month – and rolling over maturing Treasuries at auction. As the Federal Reserve recently noted:

> The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.[20]

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[19] Federal Reserve Statistical Release, "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks," H.4.1.
[20] Federal Open Market Committee, *Press Release* (Dec. 17, 2014).

This continued investment maintains the downward pressure on interest rates that is the hallmark of the stimulus program and the anomalous conditions currently characterizing capital markets.

Of course, the corollary to these observations is that changes to this policy of reinvestment would further reduce stimulus measures and could place significant upward pressure on bond yields, especially considering the unprecedented magnitude of the Federal Reserve's holdings of Treasury bonds and mortgage-backed securities. The International Monetary Fund noted, "A lack of Fed clarity could cause a major spike in borrowing costs that could cause severe damage to the U.S. recovery and send destructive shockwaves around the global economy," adding that, "[a] smooth and gradual upward shift in the yield curve might be difficult to engineer, and there could be periods of higher volatility when longer yields jump sharply—as recent events suggest."[21] Similarly, The Wall Street Journal noted investors' "hypersensitivity to Fed interest rate decisions," and expectations that higher interest rates "may come a bit sooner and be a touch more aggressive than expected."[22] As a *Financial Analysts Journal* article noted:

> Because no precedent exists for the massive monetary easing that has been practiced over the past five years in the United States and Europe, the uncertainty surrounding the outcome of central bank policy is so vast. . . . Total assets on the balance sheets of most developed nations' central banks have grown massively since 2008, and the timing of when the banks will unwind those positions is uncertain.[23]

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[21] Talley, Ian, "IMF Urges 'Improved' U.S. Fed Policy Transparency as It Mulls Easy Money Exit," The Wall Street Journal (July 26, 2013).
[22] Jon Hilsenrath and Victoria McGrane, "Yellen Debut Rattles Markets," Wall Street Journal (Mar. 19, 2014).
[23] Poole, William, "Prospects for and Ramifications of the Great Central Banking Unwind," Financial Analysts Journal (November/December 2013).

These developments highlight continued concerns for investors and support expectations for higher interest rates as the economy and labor markets continue to recover. With the Federal Reserve curtailing the expansion of its enormous portfolio of Treasuries and mortgage bonds, ongoing concerns over political stalemate in Washington, the threat of renewed recession in the Eurozone, and political and economic unrest in Ukraine, the Middle East, and emerging markets, the potential for significant volatility and higher capital costs is clearly evident to investors.

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

A. Current capital market conditions continue to reflect the impact of unprecedented policy measures taken in response to recent dislocations in the economy and financial markets. As a result, current capital costs are not representative of what is likely to prevail over the near-term future. As the Federal Energy Regulatory Commission ("FERC") recently concluded:

> [W]e also understand that any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions. Therefore, while the DCF model remains the Commission's preferred approach to determining allowed rate of return, the Commission may consider the extent to which economic anomalies may have affected the reliability of DCF analyses …[24]

This conclusion is supported by comparisons of current conditions to the historical record and independent forecasts. As demonstrated above, recognized economic forecasting services project that long-term capital costs will increase from present levels.

[24] Opinion No. 531, 147 FERC ¶ 61,234 at P 41 (2014).

To address the reality of current capital markets, the WUTC should consider forecasts for higher public utility bond yields in assessing the reasonableness of individual cost of equity estimates and in evaluating a fair ROE for Avista from within the range of reasonableness. As discussed in Exhibit No.___(AMM-3), this result is supported by economic studies that show that equity risk premiums are higher when interest rates are at very low levels.

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

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

D. Support For Avista's Credit Standing

Q. What credit ratings have been assigned to Avista?

A. S&P has assigned Avista a corporate credit rating of "BBB", while Moody's has set Avista's Issuer Rating at "Baa1".

Q. What considerations impact investors' assessment of the firms in the utility industry?

A. Numerous factors have the potential to impact investors' perceptions of the relative risks inherent in the utility industry and have implications for the financial standing

of the utilities themselves. These include the possibility of volatile fuel or purchased power costs, uncertain environmental mandates and associated costs, the implications of declining demand associated with economic weakness or structural changes in usage patterns, and increased reliance on distributed generation or other alternatives to the incumbent utility. Apart from these considerations, utilities may face increasing costs of operating their systems, as well as the financial pressures associated with large capital expenditure programs, which are magnified during periods of turmoil in capital markets.

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

A. The pressures of significant capital expenditure requirements reinforce the importance of supporting continued improvement in Avista's credit standing. Investors understand from past experience in the utility industry that large capital needs can lead to significant deterioration in financial integrity that can constrain access to capital, especially during times of unfavorable capital market conditions. Considering the uncertain state of financial markets, competition with other investment alternatives, and investors' sensitivity to the potential for market volatility, greater credit strength is a key ingredient in maintaining access to capital at reasonable cost. As Mr. Thies confirms in his testimony, continued regulatory support will be a key driver in continuing to build Avista's financial health.

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

A. Investors recognize that constructive regulation is a key ingredient in supporting utility credit ratings and financial integrity, particularly during times of adverse

conditions. As Moody's noted, "the regulatory environment is the most important driver of our outlook because it sets the pace for cost recovery,"[25] With respect to Avista specifically, the major bond rating agencies have explicitly cited the potential that adverse regulatory rulings could compromise the Company's credit standing. S&P observed that management of Avista's regulatory relationships "is a critical underpinning of its investment-grade credit quality,"[26] and concluded that "greater borrowing or increased rate lag, a large deferral, or adverse regulatory decisions" could lead to a downgrade. Similarly, Moody's concluded that "Avista's ratings could be negatively impacted if the level of regulatory support wanes."[27] Further strengthening Avista's financial integrity is imperative to ensure that the Company has the capability to maintain an investment grade rating while confronting large capital expenditures and other potential challenges.[28]

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

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

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[25] Moody's Investors Service, "Regulation Will Keep Cash Flow Stable As Major Tax Break Ends," *Industry Outlook* (Feb. 19, 2014).
[26] Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (May 9, 2014).
[27] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 28, 2014).
[28] As noted in the testimony of Mr. Thies, continued regulatory support will be instrumental in achieving Avista's objective of a BBB+ rating, which is consistent with the average credit standing in the electric utility industry.

E. Capital Structure

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

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

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

A. Avista's capital structure is presented in the testimony of Mr. Thies. As summarized in his testimony, the proposed common equity ratio used to compute Avista's overall rate of return is 48.0 percent in this filing.

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

A. As shown on Exhibit No.___(AMM-5), for the 21 firms in the Utility Group, common equity ratios at December 31, 2013 ranged between 31.3 percent and 57.8 percent and averaged 48.7 percent. Adjusting the average capitalization to include short-term debt in the same proportion as Avista would result in an adjusted equity ratio of 47.1 percent.

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

A. As shown on Exhibit No.___(AMM-5), Value Line expects an average common equity ratio for the proxy group of utilities of 49.5 percent for its three-to-five year forecast horizon, with the individual common equity ratios ranging from 37.0 percent to 58.0 percent. Adjusting the average capitalization to include short-term debt in the same proportion as Avista would result in an adjusted equity ratio of 47.9 percent. The WUTC has previously observed that "[i]t is appropriate … to afford more weight to forward considerations than to historic conditions as we determine the appropriate equity ratio to be embedded in prospective rates."[29]

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

A. The 48.0 percent common equity ratio requested by Avista is entirely consistent with the range of equity ratios maintained by the firms in the Utility Group and is in-line with the 47.1 percent and 47.9 percent adjusted average equity ratios at year-end 2013 and based on Value Line's near-term expectations, respectively.

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

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

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

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

Moody's has repeatedly warned investors of the risks associated with debt leverage and fixed obligations and advised utilities not to squander the opportunity to strengthen the balance sheet as a buffer against future uncertainties.[30] Similarly, S&P noted that, "we generally consider a debt to capital level of 50% or greater to be aggressive or highly leveraged for utilities."[31]

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

A. Utilities are facing significant capital investment plans, uncertainties over accommodating future environmental mandates, and ongoing regulatory risks. Coupled with the potential for turmoil in capital markets, these considerations warrant a stronger balance sheet. A more conservative financial profile, in the form of a higher common equity ratio, is consistent with the need to maintain the continuous access to capital that is required to fund

[30] 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).

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

operations and necessary system investment, even during times of adverse capital market conditions.

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

These commitments have been repeatedly cited by major bond rating agencies in connection with assessments of utility financial risks.[32] The capital structure ratios presented earlier do not include imputed debt associated with power purchase agreements or the impact of other off-balance sheet obligations. Avista has continued to add to its purchased power portfolio, most recently with a 30-year PPA in connection with renewable resources from the Palouse Wind Project.

[32] *See, e.g.*, Standard & Poor's Corporation, "Utilities: Key Credit Factors For The Regulated Utilities Industry," *RatingsDirect* (Nov. 19, 2013).

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

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

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

III. CAPITAL MARKET ESTIMATES

Q. What is the purpose of this section?

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

A. Overview

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

A. No. In my opinion, no single method or model should be relied upon to determine a utility's cost of equity because no single approach can be regarded as wholly reliable. Therefore, I used the DCF, CAPM, and risk premium methods to estimate the cost of common equity. In addition, I also evaluated a fair ROE using an earnings approach based on investors' current expectations in the capital markets. In my opinion, comparing estimates produced by one method with those produced by other approaches ensures that the estimates of the cost of equity pass fundamental tests of reasonableness and economic logic. My consideration of multiple methods and approaches is consistent with the conclusions of the WUTC:

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

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

A. In estimating the cost of equity, the DCF model is typically applied to publicly traded firms engaged in similar business activities or with comparable investment risks. As described in detail in Exhibit No.___(AMM-3), I applied the DCF model to a utility proxy group composed of those dividend-paying companies included by Value Line in its Electric Utilities Industry groups with:

1. S&P corporate credit ratings of "BBB-" to "BBB+;"
2. Moody's issuer ratings of Baa2, Baa1, or A3,
3. Value Line Safety Rank of "2" or "3";

4. No involvement in a major merger or acquisition; and,

5. Currently paying common dividends with no recent dividend cuts.

I refer to this group of 21 comparable-risk firms as the "Utility Group."[33]

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

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

TABLE 3
COMPARISON OF RISK INDICATORS

			Value Line		
Proxy Group	**S&P**	**Moody's**	**Safety Rank**	**Financial Strength**	**Beta**
Utility Group	BBB	Baa1	2	B++	0.76
Avista	BBB	Baa1	2	A	0.80

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

A. Yes. Considered together, a comparison of these objective measures, which consider of a broad spectrum of risks, including financial and business position, and exposure to firm-specific factors, indicates that investors would likely conclude that the overall investment risks for Avista are generally comparable to those of the firms in the Utility Group.

[33] 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).

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

A. My application of the DCF model, which is discussed in greater detail in Exhibit No.___(AMM-3), considered three alternative measures of expected earnings growth, as well as the sustainable growth rate based on the relationship between expected retained earnings and earned rates of return ("br+sv"). As shown on Exhibit No.___(AMM-6) and summarized below in Table 4, after eliminating illogical values,[34] application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE 4
DCF RESULTS – UTILITY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	9.2%	10.1%
IBES	9.9%	9.9%
Zacks	9.7%	9.6%
Reuters	10.0%	9.9%
br + sv	8.3%	9.3%

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

A. Like the DCF model, the ECAPM is an *ex-ante*, or forward-looking model based on expectations of the future. As a result, in order to produce a meaningful estimate of investors' required rate of return, the ECAPM is best applied using estimates that reflect the expectations of actual investors in the market, not with backward-looking, historical data. Accordingly, I applied the ECAPM to the Utility Group based on a forward-looking estimate for investors' required rate of return from common stocks. Because this forward-looking

[34] I provide a detailed explanation of my DCF analysis, including the evaluation of individual estimates, in Exhibit No.___(AMM-3).

application of the ECAPM looks directly at investors' expectations in the capital markets, it provides a more meaningful guide to the expected rate of return required to implement the ECAPM.

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

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

A. As shown on page 1 of Exhibit No.___(AMM-8), my forward-looking application of the ECAPM model indicated an average ROE of 10.4 percent for the Utility Group. Adjusting the 10.4 percent theoretical ECAPM result to incorporate the size adjustment results in an indicated cost of common equity of 11.5 percent.

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

A. Yes. As discussed earlier, there is widespread consensus that interest rates will increase materially as the economy continues to strengthen. Accordingly, in addition to the use of current bond yields, I also applied the CAPM based on the forecasted long-term Treasury bond yields developed based on projections published by Value Line, IHS Global Insight and Blue Chip. As shown on page 2 of Exhibit No.___(AMM-8), incorporating a forecasted Treasury bond yield for 2015-2019 implied an average cost of equity of

approximately 10.7 percent for the Utility Group, or 11.8 percent after adjusting for the impact of relative size.

Q. How did you implement the risk premium method?

A. I based my estimates of equity risk premiums for electric utilities on surveys of previously authorized rates of return on common equity, which are frequently referenced as the basis for estimating equity risk premiums. My application of the risk premium method also considered the inverse relationship between equity risk premiums and interest rates, which suggests that when interest rate levels are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums widen.

Q. What cost of equity was indicated by the risk premium approach?

A. As shown on page 1 of Exhibit No.___(AMM-9), adding an adjusted risk premium of 5.40 percent to the December 2014 average yield on triple-B utility bonds of 4.70 percent resulted in an implied cost of equity of approximately 10.1 percent. As shown on page 2 of Exhibit No.___(AMM-9), incorporating a forecasted yield for 2015-2019 and adjusting for changes in interest rates since the study period implied a cost of equity of approximately 11.3 percent.

B. Flotation Costs

Q. What other considerations are relevant in setting the return on equity for a utility?

A. The common equity used to finance the investment in utility assets is provided from either the sale of stock in the capital markets or from retained earnings not paid out as dividends. When equity is raised through the sale of common stock, there are costs

associated with "floating" the new equity securities. These flotation costs include services such as legal, accounting, and printing, as well as the fees and discounts paid to compensate brokers for selling the stock to the public. Also, some argue that the "market pressure" from the additional supply of common stock and other market factors may further reduce the amount of funds a utility nets when it issues common equity.

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

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

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

A. Yes. First, an adjustment for flotation costs associated with past equity issues is appropriate, even when the utility is not contemplating any new sales of common stock. The need for a flotation cost adjustment to compensate for past equity issues has been recognized in the financial literature. In a *Public Utilities Fortnightly* article, for example, Brigham, Aberwald, and Gapenski demonstrated that even if no further stock issues are contemplated, a flotation cost adjustment in all future years is required to keep shareholders whole, and that the flotation cost adjustment must consider total equity, including retained earnings.[35] Similarly, *New Regulatory Finance* contains the following discussion:

> Another controversy is whether the flotation cost allowance should still be applied when the utility is not contemplating an imminent common stock issue. Some argue that flotation costs are real and should be recognized in calculating the fair rate of return on equity, but only at the time when the expenses are incurred. In other words, the flotation cost allowance should not continue indefinitely, but should be made in the year in which the sale of securities occurs, with no need for continuing compensation in future years. This argument implies that the company has already been compensated for these costs and/or the initial contributed capital was obtained freely, devoid of any flotation costs, which is an unlikely assumption, and certainly not applicable to most utilities. … The flotation cost adjustment cannot be strictly forward-looking unless all past flotation costs associated with past issues have been recovered.[36]

[35] Brigham, E.F., Aberwald, D.A., and Gapenski, L.C., "Common Equity Flotation Costs and Rate Making," *Public Utilities Fortnightly*, May, 2, 1985.
[36] Morin, Roger A., "New Regulatory Finance," *Public Utilities Reports, Inc.* (2006) at 335.

Q. What is the magnitude of the adjustment to the "bare bones" cost of equity to account for issuance costs?

A. While there are a number of ways in which a flotation cost adjustment can be calculated, one of the most common methods used to account for flotation costs in regulatory proceedings is to apply an average flotation-cost percentage to a utility's dividend yield. Based on a review of the finance literature, *New Regulatory Finance* concluded:

> The flotation cost allowance requires an estimated adjustment to the return on equity of approximately 5% to 10%, depending on the size and risk of the issue.[37]

Alternatively, a study of data from Morgan Stanley regarding issuance costs associated with utility common stock issuances suggests an average flotation cost percentage of 3.6 percent.[38]

Issuance costs are a legitimate consideration in setting the ROE for a utility, and applying an expense percentage of 3.6 percent to the average dividend yield for the Utility Group of 3.5 percent implies a flotation cost adjustment on the order of 13 basis points.

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

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

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[37] Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* at 323 (2006).

[38] 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.

> The Commission also agrees with both Dr. Avera and Dr. Lurito that a 25 basis point markup for flotation costs should be made. This amount compensates the Company for costs incurred from past issues of common stock. Flotation costs incurred in connection with a sale of common stock are not included in a utility's rate base because the portion of gross proceeds that is used to pay these costs is not available to invest in plant and equipment.[39]

C. Other ROE Benchmarks

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

A. As indicated earlier, I also conducted alternative tests to demonstrate that the end results of the analyses discussed above are reasonable and do not exceed a fair ROE. The first test is based on applications of the traditional CAPM analysis using current and projected interest rates. The second test is based on expected earned returns for electric utilities. Finally, I present a DCF analysis for a low risk group of non-utility firms, with which Avista must compete for investors' money.

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

A. My applications of the traditional CAPM were based on the same forward-looking market rate of return, risk-free rates, and beta values discussed earlier in connections with the ECAPM. As shown on page 1 of Exhibit No.___(AMM-10), applying the forward-looking CAPM approach to the firms in the Utility Group results in an average theoretical cost of equity estimate of 9.9 percent, or 11.0 percent after incorporating the size adjustment corresponding to the market capitalization of the individual utilities.

As shown on page 2 of Exhibit No.___(AMM-10), incorporating a forecasted Treasury bond yield for 2015-2019 implied an average cost of equity of approximately 10.2 percent for the Utility Group, or 11.3 percent after adjusting for the impact of relative size.

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

Q. Please summarize the results of the expected earnings approach.

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

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

A. Value Line's projections imply an average rate of return on common equity for the electric and gas utility industries of 10.58 percent and 11.4 percent, respectively, over its 2017-2019 forecast horizon.[40] As shown on Exhibit No.___(AMM-11), Value Line's projections for the Utility Group suggest an average ROE of approximately 10.0 percent, with a midpoint value of 10.8 percent.

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

A. Under the regulatory standards established by *Hope* and *Bluefield*, the salient criterion in establishing a meaningful benchmark to evaluate a fair ROE is relative risk, not the particular business activity or degree of regulation. With regulation taking the place of

[40] The Value Line Investment Survey (Oct 31, Nov. 21, Dec. 5, & Dec. 19, 2014). Value Line reports return on year-end equity so the equivalent return on average equity would be higher.

competitive market forces, required returns for utilities should be in line with those of non-utility firms of comparable risk operating under the constraints of free competition. Consistent with this accepted regulatory standard, I also applied the DCF model to a reference group of low-risk companies in the non-utility sectors of the economy. I refer to this group as the "Non-Utility Group".

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

A. Yes. The cost of capital is an opportunity cost based on the returns that investors could realize by putting their money in other alternatives. Clearly, the total capital invested in utility stocks is only the tip of the iceberg of total common stock investment, and there are a plethora of other enterprises available to investors beyond those in the utility industry. Utilities must compete for capital, not just against firms in their own industry, but with other investment opportunities of comparable risk. Indeed, modern portfolio theory is built on the assumption that rational investors will hold a diverse portfolio of stocks, not just companies in a single industry.

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

A. Yes. Returns in the competitive sector of the economy form the very underpinning for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The Supreme Court has recognized that it is the degree of risk, not the nature of the business, which is relevant in evaluating an allowed ROE for a utility. The *Bluefield* case refers to "business undertakings attended with comparable risks

and uncertainties." [41] It does not restrict consideration to other utilities. Similarly, the *Hope* case states:

> By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.[42]

As in the *Bluefield* decision, there is nothing to restrict "other enterprises" solely to the utility industry.

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

A. Yes. The estimates of growth from the DCF model depend on analysts' forecasts. It is possible for utility growth rates to be distorted by short-term trends in the industry or the industry falling into favor or disfavor by analysts. The result of such distortions would be to bias the DCF estimates for utilities. Because the Non-Utility Group includes low risk companies from many industries, it diversifies away any distortion that may be caused by the ebb and flow of enthusiasm for a particular sector.

Q. How do the overall risks of this Non-Utility Group compare with the Utility Group and Avista?

A. Table 5 compares the Non-Utility Group with the Utility Group and Avista across the four key risk measures discussed earlier:

[41] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).
[42] *Federal Power Comm'n v. Hope Natural Gas Co.* (320 U.S. 391, 1944).

TABLE 5
COMPARISON OF RISK INDICATORS

			Value Line		
Proxy Group	**S&P**	**Moody's**	**Safety Rank**	**Financial Strength**	**Beta**
Non-Utility	A	A2	1	A+	0.66
Electric Group	BBB	Baa1	2	B++	0.76
Avista	BBB	Baa1	2	A	0.80

As shown above, the average credit ratings, Safety Rank, Financial Strength Rating, and beta for the Non-Utility Group suggest less risk than for Avista and the proxy group of utilities. These objective indicators suggest that investors would likely conclude that the overall investment risks for the Utility Group and Avista are greater than those of the firms in the Non-Utility Group.

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

A. As shown on Exhibit No.___(AMM-12), I applied the DCF model to the non-utility companies using the same analysts EPS growth projections described earlier for the Utility Group. As summarized below in Table 6, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE 6
DCF RESULTS – NON-UTILITY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	10.9%	10.8%
IBES	10.2%	10.4%
Zacks	10.3%	11.0%
Reuters	10.3%	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 between the DCF estimates for the Utility and Non-Utility Groups suggests that both should be considered to ensure a balanced end-result.

IV. IMPACT OF REGULATORY MECHANISMS

Q. Would any adjustment to the ROE be warranted due to Avista's ERM or proposed attrition adjustment?

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

> [T]he threshold it must meet to true-up uncollected costs in Washington is high, and the company does not automatically collect deferred costs. Each year, uncollected costs are subject to defined sharing bands, allowing the company to potentially defer certain portions for collection from customers. This mechanism is weaker than that for some utilities operating in western states with high hydrological or significant gas generation exposure.[43]

Investors recognize that the ability to adjust rates to recover energy costs is universally prevalent in the utility industry. Such adjustment mechanisms act to level the playing field, placing the Company on equal footing with its peers in the industry. As a result, no adjustment to the ROE is justified or warranted.

In her testimony Ms. Andrews explains and illustrates the importance of an attrition analysis to address the impact of attrition and regulatory lag. Like any other resource – fuel, labor, or debt capital – equity capital has a cost. Much like the ERM helps to ensure that Avista recovers the actual cost of fuel, an attrition analysis would simply help to ensure that

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

the Company has a reasonable opportunity to actually earn the allowed ROE, which compensates investors for the use of their capital.

Q. Does the fact that the settlement in Avista's last general rate case provided for revenue decoupling warrant any adjustment in your evaluation of a fair ROE?

A. No. As discussed earlier, investors recognize that Avista is exposed to significant risks associated with the ability to recover rising costs and investment on a timely basis, and concerns over these risks have become increasingly pronounced in the industry. The revenue decoupling mechanism approved in connection with Avista's last general rate case is a valuable means of reducing those risks, but it does not eliminate them. In addition, investors also recognize that the increased scrutiny associated with trackers exposes the Company to increased risk for retroactive reviews and disallowances. While the regulatory mechanisms approved for Avista attenuate exposure to attrition in an era of rising costs, this leveling of the playing field only serves to address factors that could otherwise impair the Company's opportunity to earn its authorized return, as required by established regulatory standards.

Q. Is there any evidence that approval of revenue decoupling has resulted in a measureable change to Avista's relative investment risks?

A. No. The WUTC's approval of decoupling is supportive of Avista's financial integrity, but there is no evidence to suggest that implementation of decoupling has altered the relative risk of Avista enough to warrant any adjustment to its ROE. As noted earlier, the investment community and the major credit rating agencies in particular, pay close attention

to the regulatory framework, including cost adjustment mechanisms. Based largely on the expanded use of ratemaking mechanisms such as revenue decoupling and cost-recovery riders, Moody's upgraded most regulated utilities in January 2014.[44] Recognizing this industry trend, and the prospective ratemaking mechanisms already approved by the WUTC for Puget Sound Energy, Moody's premised its assessment of Avista's risks on the expectation that "similar treatment will be afforded to Avista and that the company will have improved cost recovery mechanisms (e.g., decoupling)."[45] In other words, the implications of revenue decoupling and other regulatory mechanisms are already fully reflected in Avista's credit ratings, which are comparable to those of the proxy group used to estimate the cost of equity.

Moreover approval of revenue decoupling does not remove overhanging regulatory risks. Consider the example of Hawaiian Electric Company ("HECO"). Despite implementation of revenue decoupling, HECO continues to under-earn its allowed ROE and is facing the prospect of ongoing uncertainties over potential revisions to the regulatory framework. The investment community observed that "a pending decoupling review raises the risk of wider regulatory lag,"[46] and noted, "The HI PUC continues to unwind the constructive financial parameters of their previously improved decoupling scheme, negatively impacting [HECO's] outlook."[47] Avista remains exposed to future determinations

[44] Moody's Investors Service, "US utility sector upgrades driven by stable and transparent regulatory frameworks," *Sector Comment* (Feb. 3, 2014).
[45] Moody's Investors Service, "Avista Corp.," *Global Credit Research* (Mar. 28, 2014).
[46] Wolfe Research, "Hawaiian Electric," *Utilities & Power* (Apr. 30, 2014).
[47] International Strategy & Investment Group LLC, "Hawaiian Electric Industries, Inc.," *Power & Utilities Research* (Feb. 27, 2014).

as to the prudency of its expenditures and investments, and investors continue to evaluate expectations for balance in the regulatory framework and in establishing allowed ROEs.

Q. From the standpoint of common equity investors, is there a downside to revenue decoupling mechanisms?

A. Yes. The investment community does not view mechanisms to address revenue stabilization as entirely positive. This is because, while such measures dampen the volatility of a utility's revenues, they also largely preclude the prospects of greater earnings due to higher consumption. This double-edged sword was noted early on by S&P in the context of weather adjustment clauses:

> Some [local gas distribution companies] are reluctant to pursue such provisions, because they don't want to forego the upside earnings potential of a significantly colder-than-normal winter.[48]

Similarly, Moody's warned that "it is unclear, at this time, as to whether these cost riders/trackers may prove to have hidden consequences over the long-term horizon."[49] Thus, investors would also consider the loss of upside potential in evaluating the impact of decoupling mechanisms.

Q. Do the regulatory mechanisms approved for Avista set the Company apart from other firms operating in the utility industry?

A. No. Adjustment mechanisms and cost trackers have been increasingly prevalent in the utility industry in recent years. In response to the increasing risk sensitivity of investors to uncertainty over fluctuations in costs and the importance of advancing other

[48] Standard & Poor's Corporation, "Natural Gas Distribution," *Industry Surveys* at 18 (Nov. 29, 2001).
[49] Moody's Investors Service, "U.S. Investor-Owned Electric Utilities," *Industry Outlook* (January 2009).

public interest goals such as reliability, energy conservation, and safety, utilities and their regulators have sought to mitigate some of the cost recovery uncertainty and align the interest of utilities and their customers through a variety of adjustment mechanisms.

Reflective of this trend, the companies in the electric and gas utility industries operate under a wide variety of cost adjustment mechanisms, which range from riders to recover bad debt expense and post-retirement employee benefit costs to revenue decoupling and adjustment clauses designed to address rising capital investment outside of a traditional rate case and increasing costs of environmental compliance measures. As Regulatory Research Associates concluded in its recent review of adjustment clauses, "some form of decoupling is in place in the vast majority of jurisdictions."[50] Similarly, the majority of gas utilities benefit from revenue decoupling, along with a variety of other provisions that enhance their ability to recover operating and capital costs on a timely basis.[51] The firms in the Non-Utility Group also have the ability to alter prices in response to rising production costs, with the added flexibility to withdraw from the market altogether. As a result, the mitigation in risks associated with utilities' ability to adjust revenues and attenuate the risk of cost recovery is already reflected in the cost of equity range determined earlier, and no separate adjustment to Avista's ROE is necessary or warranted.

[50] Regulatory Research Associates, "Adjustment Clauses, A State-by-State Overview," *Regulatory Focus* (Jul. 1, 2014).
[51] *See, e.g.,* American Gas Association, *Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List* (Jan. 2015).

Q. Have you summarized the various tracking mechanisms available to the other firms in the Utility Group?

A. Yes. I evaluated the regulatory mechanisms approved for the other utilities in the Utility Group using data reported in the most recent Form 10-K reports filed with the Securities and Exchange Commission, which is publicly available and free of charge to investors. Reflective of industry trends, the companies in the Utility Group operate under a variety of regulatory adjustment mechanisms.[52] As summarized on Exhibit No.___(AMM-15), these mechanisms are ubiquitous and wide ranging. For example, fourteen of the firms benefit from some form of revenue decoupling or operate in jurisdictions that allow the use of future test years. Many of these utilities operate under mechanisms that allow for cost recovery of infrastructure investment outside a formal rate proceeding, as well as the ability to implement periodic rate adjustments to reflect changes in a diverse range of operating and capital costs, including expenditures related to environmental mandates, conservation programs, transmission costs, and storm recovery efforts.

Q. Have other regulators recognized that approval of adjustment mechanisms do not warrant an adjustment to the ROE?

A. Yes. For example, the Staff of the Kansas State Corporation Commission concluded that no ROE adjustment was justified in the case of certain tariff riders because the impact of similar mechanisms is already accounted for through the use of a proxy group:

> Those mechanisms differ from company to company and jurisdiction to jurisdiction. Regardless of their nuances, the intent is the same; reduce cash-

[52] Because this information is widely referenced by the investment community, it is also directly relevant to an evaluation of the risks and prospects that determine the cost of equity.

> flow volatility year to year and place recent capital expenditures in rates as quickly as possible. Investors are aware of these mechanisms and their benefits are a factor when investors value those stocks. Thus, any risk reduction associated with these mechanisms is captured in the market data (stock prices) used in Staff's analysis.[53]

Similarly, any mitigation in risks associated with Avista's ability to attenuate regulatory lag through cost recovery mechanisms is already reflected in the results of the quantitative methods presented in my testimony.

Q. What does this imply with respect to the evaluation of a fair ROE for Avista?

A. While investors would consider Avista's regulatory mechanisms to be supportive of the Company's financial integrity and credit ratings, there is certainly no evidence to suggest that these mechanisms alone have altered Avista's relative risk enough to warrant an ROE adjustment. The purpose of regulatory mechanisms is to reduce the impact of regulatory lag and better match revenues to the underlying costs of providing service. This levels the playing field and improves Avista's ability to attract capital and actually earn its authorized ROE, but it does not result in a "windfall" or otherwise penalize customers. Utilities across the U.S. that Avista competes with for new capital are increasingly availing themselves of similar adjustments. As a result, the impact of utilities' ability to mitigate the risk of cost recovery is already reflected in the cost of equity estimates determined in this case, and no separate adjustment to Avista's ROE is necessary or warranted.

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[53] *Direct Testimony Prepared by Adam H. Gatewood*, State Corporation Commission of the State of Kansas, Docket No. 12-ATMG-564-RTS, pp. 8-9 (June 8, 2012). This proceeding was ultimately resolved through a stipulated settlement.

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

A. Yes.