

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-16_____

DOCKET NO. UG-16_____

DIRECT TESTIMONY OF

ADRIEN M. MCKENZIE, CFA

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 natural 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 have also visited the Company's main offices and had discussions with
6 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 and
9 natural gas utilities. These sources, coupled with my experience in the fields of finance and
10 utility regulation, have given me a working knowledge of the issues relevant to investors'
11 required 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 include the discounted cash flow ("DCF") model,
18 the empirical form of the Capital Asset Pricing Model ("ECAPM"), the traditional Capital
19 Asset Pricing Model ("CAPM"), an equity risk premium approach based on allowed ROEs
20 for electric utilities, and reference to expected rates of return for electric utilities, which are
21 all methods that are commonly relied on in evaluating investors' required rate of return.
22 Based on the cost of equity estimates indicated by my analyses, the Company's ROE was
23 evaluated taking into account the specific risks and potential challenges for Avista's utility

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

3 In addition, I corroborated my utility quantitative analyses by applying the DCF
4 model to a group of low risk non-utility firms. Finally, my testimony addresses the impact of
5 regulatory mechanisms on an evaluation of a fair ROE for Avista.

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

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

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).

1 **B. Summary of Conclusions**

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

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

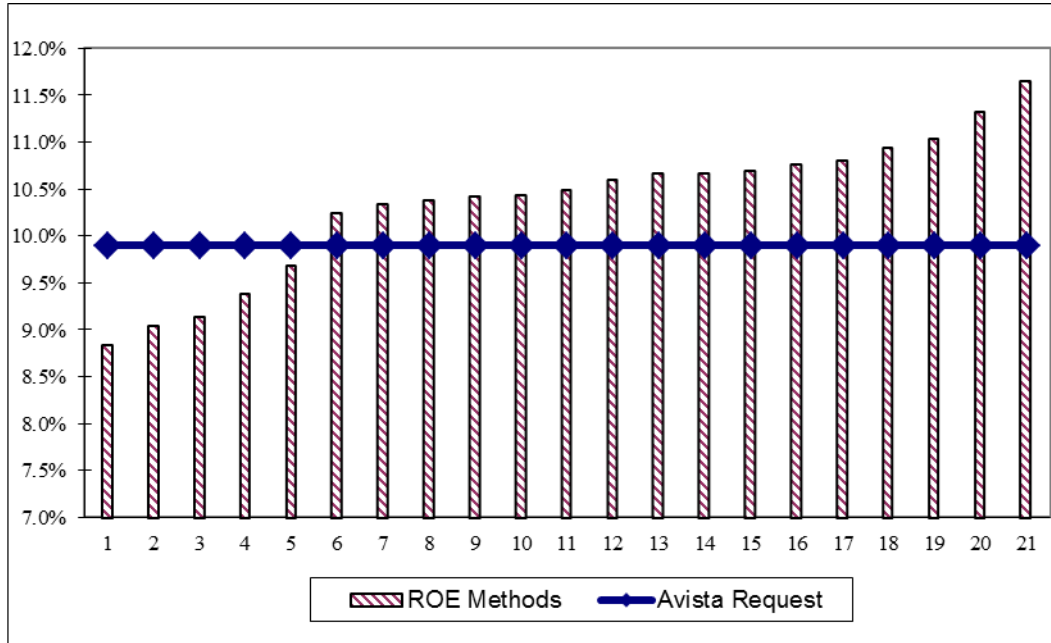
5 **TABLE 1**
6 **SUMMARY OF RESULTS**

<u>DCF</u>	<u>Average</u>	<u>Midpoint</u>
Value Line	10.4% ⁸	11.3% ²⁰
IBES	9.4% ⁴	9.7% ⁵
Zacks	8.8% ¹	9.0% ²
Internal br + sv	9.1% ³	10.4% ⁹
<u>Empirical CAPM</u>		
Historical Bond Yield	10.8% ¹⁷	10.7% ¹⁵
Projected Bond Yield	11.0% ¹⁹	11.0% ¹⁸
<u>CAPM</u>		
Historical Bond Yield	10.3% ⁷	10.3% ⁶
Projected Bond Yield	10.6% ¹²	10.5% ¹¹
<u>Utility Risk Premium</u>		
Historical Bond Yields	10.7% ¹³	
Projected Bond Yields	11.7% ²¹	
<u>Expected Earnings</u>		
Industry	10.7% ¹⁴	
Proxy Group	10.4% ¹⁰	10.8% ¹⁶
<u>Cost of Equity Recommendation</u>		
Cost of Equity Range	9.8%	-- 10.8%
<u>Flotation Cost Adjustment</u>		
Dividend Yield	3.6%	
Flotation Cost Percentage	3.6%	
Adjustment	0.13%	
<u>ROE Recommendation</u>	<u>9.93%</u>	<u>-- 10.93%</u>

37
38 Note: Footnotes correspond to rank order in the subsequent figure.

1 Figure 1, below, presents the 21 cost of equity estimates presented in Table 1 in rank order,
2 and compares them with Avista's 9.9% ROE request:

3 **FIGURE 1**
4 **RESULTS OF ANALYSES VS. AVISTA REQUEST**



23
24 **Q. What are your findings regarding the 9.9 percent ROE requested by**
25 **Avista?**

26 **A.** Based on the results of my analyses and the economic requirements necessary
27 to support continuous access to capital under reasonable terms, I determined that 9.9 percent
28 is a conservative estimate of investors' required ROE for Avista. The bases for my
29 conclusion are summarized below:

- 30
- 31 • In order to reflect the risks and prospects associated with Avista's jurisdictional
32 utility operations, my analyses focused on a proxy group of 16 other utilities with
comparable investment risks.
 - 33 • Because investors' required return on equity is unobservable and no single
34 method should be viewed in isolation, I applied the DCF, ECAPM, CAPM, and
35 risk premium methods to estimate a fair ROE for Avista, as well as referencing
36 the expected earnings approach;

- 1 • Based on the results of these analyses, and giving less weight to extremes at the
2 high and low ends of the range, I concluded that the cost of equity for the proxy
3 group of utilities is in the **9.8 percent to 10.8 percent** range, or **9.93 percent to**
4 **10.93 percent** after incorporating an adjustment to account for the impact of
5 common equity flotation costs; and,
- 6 • As reflected in the testimony of Mark T. Thies, Avista is requesting a fair ROE of
7 **9.9 percent**, which falls below the **10.43 percent** midpoint of my recommended
8 range. Considering capital market expectations, the exposures faced by Avista,
9 and the economic requirements necessary to maintain financial integrity and
10 support additional capital investment even under adverse circumstances, it is my
11 opinion that 9.9 percent represents a conservative ROE for Avista.

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

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

- 15 • The reasonableness of a 9.9 percent ROE for Avista is supported by the need to
16 consider the challenges to the Company's credit standing:
 - 17 ○ The pressure of funding significant capital expenditures of approximately
18 \$1.2 billion over the next three years heighten the uncertainties associated
19 with Avista, especially given that the Company's existing rate base is
20 approximately \$2.7 billion;
 - 21 ○ Because of Avista's reliance on hydroelectric generation and increasing
22 dependence on natural gas fueled capacity, the Company is exposed to
23 relatively greater risks of power cost volatility, even with the Energy
24 Recovery Mechanism ("ERM");
 - 25 ○ Avista's opportunity to actually earn a fair ROE and mitigate exposure to
26 attrition is an important objective;
 - 27 ○ Widespread expectations for higher interest rates emphasize the implication
28 of considering the impact of projected bond yields in evaluating the results
29 of the ECAPM and risk premium methods; and,
 - 30 ○ My conclusion that a 9.9 percent ROE for Avista is a conservative estimate
31 of investors' required return is also reinforced by the greater uncertainties
32 associated with Avista's relatively small size.
- 33 • Sensitivity to financial market and regulatory uncertainties has increased
34 dramatically and investors recognize that constructive regulation is a key
35 ingredient in supporting utility credit standing and financial integrity;
- 36 • Providing Avista with the opportunity to earn a return that reflects these realities
37 is an essential ingredient to support the Company's financial position, which
38 ultimately benefits customers by ensuring reliable service at lower long-run costs;

- 1 • Continued support for Avista’s financial integrity, including the opportunity to
2 actually earn a reasonable ROE, is imperative to ensure that the Company has the
3 capability to maintain and build its credit standing while confronting potential
4 challenges associated with funding infrastructure development necessary to meet
5 the needs of its customers.
- 6 • Regulatory mechanisms approved for Avista, including decoupling, are viewed as
7 supportive by investors, and the implications of revenue decoupling and other
8 regulatory mechanisms are fully reflected in Avista’s credit ratings, which are
9 comparable to those of the proxy group used to estimate the cost of equity.
10 Because the utilities in my proxy group operate under a wide variety of regulatory
11 mechanisms, including decoupling, the mitigation in risks associated with the
12 ability to adjust revenues and attenuate the risk of cost recovery is already
13 reflected in the results of my analyses.

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

16 **Q. What did the DCF results for your select group of non-utility firms**
17 **indicate with respect to your evaluation?**

18 A. Average DCF estimates for a low-risk group of firms in the competitive sector
19 of the economy ranged from 9.9% to 10.7%, and averaged 10.3%. These results confirm that
20 a 9.9% ROE falls in the lower end of the reasonable range to maintain Avista’s financial
21 integrity, provide a return commensurate with investments of comparable risk, and support
22 the Company’s ability to attract capital.

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

25 A. Apart from the results of the quantitative methods summarized above, it is
26 crucial to recognize the importance of supporting the Company’s financial position so that
27 Avista remains prepared to respond to unforeseen events that may materialize in the future.
28 Recent challenges in the economic and financial market environment (such as interest rate

1 increases and capital market volatility) highlight the imperative of continuing to build the
2 Company's financial strength in order to attract the capital needed to maintain reliable
3 service at a reasonable cost for customers. The reasonableness of the Company's requested
4 ROE is reinforced by the operating risks associated with Avista's reliance on hydroelectric
5 generation, the higher uncertainties associated with Avista's relatively small size, and the fact
6 that, due to broad-based expectations for higher bond yields, current cost of capital estimates
7 are likely to understate investors' requirements at the time the outcome of this proceeding
8 becomes effective and beyond.

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

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

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

20 A. Based on my evaluation, I concluded that a common equity ratio of 48.5
21 percent represents a reasonable basis from which to calculate Avista's overall rate of return.
22 This conclusion was based on the following findings:

- 1 • Avista’s requested capitalization is consistent with the Company’s need to
2 maintain its credit standing and financial flexibility as it seeks to raise additional
3 capital to fund significant system investments and meet the requirements of its
4 service territory;
- 5 • Avista’s proposed common equity ratio is entirely consistent with the range of
6 capitalizations for the proxy utilities, both for year-end 2014 and based on Value
7 Line’s near-term expectations; and,
- 8 • The requested capitalization reflects the importance of an adequate equity layer to
9 accommodate Avista’s operating risks and the pressures of funding significant
10 capital investments. This is reinforced by the need to consider the impact of
11 uncertain capital market conditions, as well as off-balance sheet commitments
12 such as purchased power agreements, which carry with them some level of
13 imputed debt.

14 **II. RISKS OF AVISTA**

15 **Q. What is the purpose of this section?**

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

18 **A. Operating Risks**

19 **Q. How does Avista’s generating resource mix affect investors’ risk**
20 **perceptions?**

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

27 A reduction in hydro generation typically increases an electric utility’s costs
28 by requiring it to buy replacement power or run more expensive generation to
29 serve customer loads. Low hydro generation can also reduce utilities’
30 opportunity to make off-system sales. At the same time, low hydro years

1 increase regional wholesale power prices, creating potentially a double impact
2 – companies have to buy more power than under normal conditions, paying
3 higher prices.³

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

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

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

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 19, 2015).

1 **Q. Do financial pressures associated with Avista’s planned capital**
2 **expenditures also impact investors’ risk assessment?**

3 A. Yes. Avista will require capital investment to meet customer growth, provide
4 for necessary maintenance and replacements of its natural gas utility systems, as well as fund
5 new investment in electric generation, transmission and distribution facilities. Utility capital
6 additions are expected to total approximately \$375 million for 2016, and \$405 million for
7 each of the years 2017 through 2020. This represents a substantial investment given Avista’s
8 current rate base of approximately \$2.7 billion.

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

14 **Q. Would investors consider Avista’s relative size in their assessment of the**
15 **Company’s risks and prospects?**

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

⁸ Moody’s Investors Service, “Credit Opinion: Avista Corp.,” *Global Credit Research* (Mar. 11, 2015).

⁹ www.valueline.com (retrieved Jan. 8, 2016).

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

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

8 Setting rates at a level that considers the impact of attrition and allows the utility an
9 opportunity to actually earn its authorized ROE is consistent with fundamental regulatory
10 principles, as discussed in more detail by Ms. Andrews. The Supreme Court has reaffirmed
11 that the end result test must be applied to the actual returns that investors expect if they put
12 their money at risk to finance utilities.¹² That end result would maintain the utility’s financial
13 integrity, ability to attract capital and offer investors fair compensation for the risk they bear.
14 Attrition will result in under-earning the allowed ROE if the impact of regulatory lag and
15 rising capital requirements are ignored.

16 **Q. In its most recent cases before the Commission, Dockets UE-150204 and**
17 **UG-150205, the Company was granted attrition adjustments for its electric and gas**
18 **operations. How does this impact your attrition adjustment discussion?**

¹² *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 A. In finding that attrition adjustments were warranted, the Commission
2 indicated its desire to support “the Company investing in its distribution system to ensure the
3 safe and reliable service its customers demand as well as providing a realistic opportunity for
4 the Company to earn the settlement rate of return in the rate effective year.”¹³ For its natural
5 gas operations, the Commission found that:

6 [t]he Company has reasonably demonstrated that it is making significant
7 investments in non-revenue generating plant for the purposes of safety and
8 reliability, to comply with explicit regulatory requirements and in accordance
9 with prior Commission orders;¹⁴

10 [w]e recognize and accept that Avista has been under-earning on its gas
11 operations for several years while engaging in rapid replacement and
12 improvement of gas distribution infrastructure;¹⁵

13 [w]e acknowledge that the Company is likely to experience attrition in its
14 natural gas operations in the rate year.¹⁶

15 For its electric operations, the Commission noted that absent an attrition adjustment, the
16 results under Staff’s analysis would have been a reduction in electric revenue requirement of
17 more than \$20 million and that “we cannot reasonably conclude such an end result would be
18 appropriate under the standards in *Hope* and *Bluefield*.”¹⁷ Given these circumstances, the
19 Commission granted an attrition adjustment for the Company’s electric operations.

20 In short, in its most recent electric and gas cases, the WUTC recognized the
21 seriousness of the attrition issue and the importance of the Company having a reasonable
22 opportunity to actually achieve its authorized ROE. This is constructive regulatory treatment

¹³ WUTC Dockets UE-150204 and UG-150205 (consolidated), Order 05, January 6, 2016, page 44, paragraph 120.

¹⁴ Id., paragraph 121.

¹⁵ Id., paragraph 124.

¹⁶ Id.

¹⁷ Id., paragraph 132.

1 that highlights the significance of the attrition issue and its relevance to the overall financial
2 health of the Company.

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 continue to be deeply affected by the
7 Federal Reserve's unprecedented monetary policy actions and are not representative of what
8 investors expect in the future. Investors have had to contend with a level of economic
9 uncertainty and capital market volatility that has been unprecedented in recent history. The
10 ongoing potential for renewed turmoil in the capital markets has been seen repeatedly, with
11 common stock prices exhibiting the dramatic volatility that is indicative of heightened
12 sensitivity to risk. In response to heightened uncertainties in recent years, investors have
13 repeatedly sought a safe haven in U.S. government bonds. As a result of this “flight to
14 safety,” Treasury bond yields have been pushed significantly lower in the face of political,
15 economic, and capital market risks. In addition, the Federal Reserve has implemented
16 measures designed to push interest rates to historically low levels in an effort to stimulate the
17 economy and bolster employment.

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

20 A. The yields on utility bonds remain near their lowest levels in modern history.
21 Figure 2, below, compares the six-month average yield on long-term, Baa-rated utility bonds
22 at December 2015 with those prevailing since 1968:

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FIGURE 2
BBB UTILITY BOND YIELDS – CURRENT VS. HISTORICAL



21 As illustrated above, prevailing capital market conditions, as reflected in the yields on
22 triple-B utility bonds, are an anomaly when compared with historical experience. Similarly,
23 while 10-year Treasury bond yields may reflect a modest increase from all-time lows of less
24 than 2.0%, they are hardly comparable to historical levels.¹⁸ While serving as President of
25 the Federal Reserve Bank of Philadelphia, Charles Plosser observed that U.S. interest rates
26 were unprecedentedly low, and “outside historical norms.”¹⁹

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

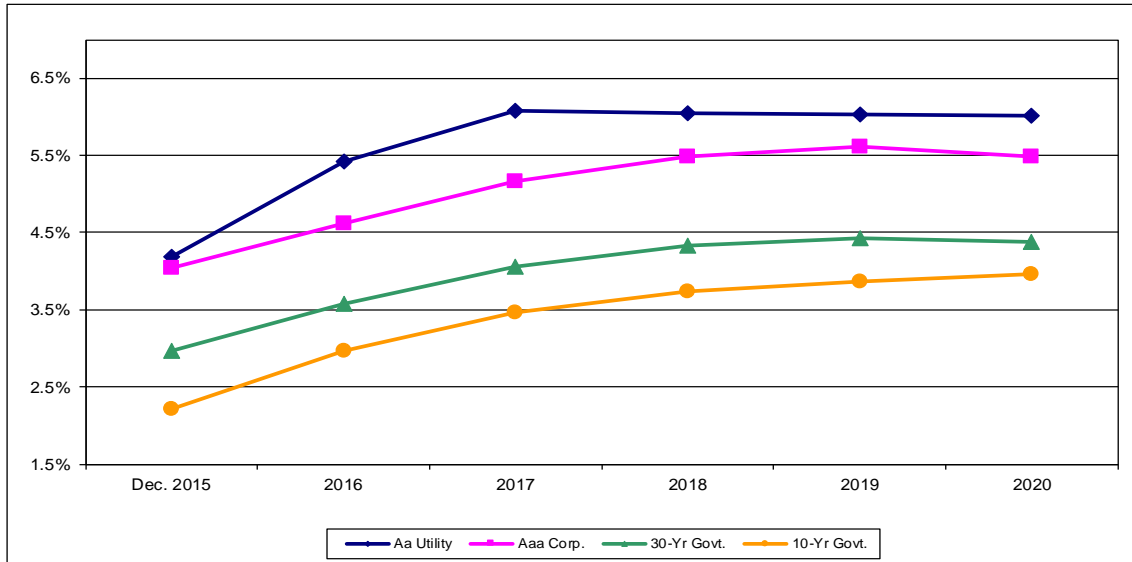
28 A. No. Investors continue to anticipate that interest rates will increase
29 significantly from present levels. Figure 3 below compares current interest rates on 10-year
30 and 30-year Treasury bonds, triple-A rated corporate bonds, and double-A rated utility bonds
31 with near-term projections from the Value Line Investment Survey (“Value Line”), IHS

¹⁸ The average yield on 10-year Treasury bonds for the six-months ended December 2015 was 2.21%. Over the 1968-2015 period illustrated on Figure 3, 10-year Treasury bond yields averaged 6.65%.

¹⁹ Barnato, Katy, “Fed’s Plosser: Low rates ‘should make us nervous,’” CNBC (Nov. 11, 2014).

1 Global Insight, Blue Chip Financial Forecasts (“Blue Chip”), and the Energy Information
2 Administration (“EIA”):

3 **FIGURE 3**
4 **INTEREST RATE TRENDS**



21 Source:

22 Value Line Investment Survey, Forecast for the U.S. Economy (Dec. 4, 2015)
23 IHS Global Insight, The U.S. Economy: The 30-Year Focus (Third-Quarter 2015)
24 Energy Information Administration, Annual Energy Outlook 2015 (April 2015)
25 Blue Chip Financial Forecasts, Vol. 34, No. 6 (Dec. 1, 2015)

26
27
28
29 These forecasting services are highly regarded and widely referenced, with the
30 Federal Energy Regulatory Commission (“FERC”) incorporating forecasts from IHS Global
31 Insight and the EIA in its preferred DCF model for natural gas and oil pipelines, as well as
32 for electric transmission utilities. As evidenced above, there is a clear consensus in the
33 investment community that the present low level of interest rates is an anomaly and will not
34 be sustained.

1 **Q. Does the Federal Reserve’s December 16, 2015 decision to raise the target**
2 **range for the federal funds rate by one-quarter percentage point mark a return to**
3 **“normal” in the capital markets?**

4 A. No. The Federal Reserve’s long-anticipated move to increase the federal
5 funds rate represents a first, and very modest, step towards implementing the process of
6 monetary policy normalization outlined in its September 17, 2014 press release.²⁰ While the
7 Federal Reserve’s action marks the onset of the normalization process, this first move does
8 not result in a fundamental alteration of its highly accommodative monetary policy. Nor
9 does it remove uncertainty over the trajectory of further interest rate increases or the
10 overhanging implications of the Federal Reserve’s enormous holdings of long-term
11 securities.

12 The Federal Reserve continues to exert considerable influence over capital market
13 conditions through its massive holdings of Treasuries and mortgage-backed securities. Prior
14 to the initiation of the stimulus program in 2009, the Federal Reserve’s holdings of U.S.
15 Treasury bonds and notes amounted to approximately \$400 - \$500 billion. With the
16 implementation of its asset purchase program, balances of Treasury securities and mortgage
17 backed instruments climbed steadily, and their effect on capital market conditions became
18 more pronounced. Table 2 below charts the course of the Federal Reserve’s asset purchase
19 program:

²⁰ Press Release, Fed. Reserve Sys., Policy Normalization Principles and Plans, (Sept. 17, 2014),
<http://www.federalreserve.gov/newsevents/press/monetary/20140917c.htm>.

TABLE 2
FEDERAL RESERVE BALANCES OF
TREASURY BONDS AND MORTGAGE-BACKED SECURITIES
(Billion \$)

4		2008	\$ 410
5		2009	\$ 1,618
6		2010	\$ 1,939
7		2011	\$ 2,423
8		2012	\$ 2,512
9		2013	\$ 3,597
10		2014	\$ 4,097
11		2015	\$ 4,100

12 Far from representing a return to normal, the Federal Reserve’s holdings of Treasury bonds
13 and mortgage-backed securities now amount to more than \$4 trillion,²¹ which is an all-time
14 high. The Federal Reserve has announced its intention to maintain these balances by
15 reinvesting principal payments from these securities “until normalization of the level of the
16 federal funds rate is well under way.”²²

17 Of course, the corollary to these observations is that changes to this policy of
18 reinvestment would further reduce stimulus measures and could place significant upward
19 pressure on bond yields, especially considering the unprecedented magnitude of the Federal
20 Reserve’s holdings of Treasury bonds and mortgage-backed securities. As a *Financial*
21 *Analysts Journal* article noted:

22 Because no precedent exists for the massive monetary easing that has been
23 practiced over the past five years in the United States and Europe, the
24 uncertainty surrounding the outcome of central bank policy is so vast. . . .
25 Total assets on the balance sheets of most developed nations’ central banks

²¹ Federal Reserve Statistical Release, “Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks,” H.4.1.

²² Janet Yellen, Chairman, Fed. Reserve Sys., Press Conference 7 (Dec. 16, 2015), <http://www.federalreserve.gov/mediacenter/files/fomcpresconf20151216.pdf>.

1 have grown massively since 2008, and the timing of when the banks will
2 unwind those positions is uncertain.²³

3 With expectations for higher interest rates, concerns about China's economy and fears
4 of a global economic slowdown, dramatic decreases in oil prices, ongoing concerns over
5 political stalemate in Washington, and political and economic unrest in the Middle East, the
6 potential for significant volatility and higher capital costs is clearly evident to investors.

7 **Q. Can you give an example of how this uncertainty has negatively impacted**
8 **the credit markets for utilities like Avista?**

9 A. Yes, this uncertainty has led the "cost" of risk to increase. This relationship is
10 illustrated in Table 3, below:

²³ Poole, William, "Prospects for and Ramifications of the Great Central Banking Unwind," *Financial Analysts Journal* (November/December 2013).

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TABLE 3
INTEREST RATE SPREADS

Month	Baa Utility Bonds	30-Year Treasury Bonds	Spread
Jan-15	4.39%	2.45%	1.94%
Feb-15	4.44%	2.57%	1.87%
Mar-15	4.51%	2.63%	1.88%
Apr-15	4.51%	2.59%	1.92%
May-15	4.91%	2.96%	1.95%
Jun-15	5.13%	3.11%	2.02%
Jul-15	5.22%	3.07%	2.15%
Aug-15	5.23%	2.85%	2.38%
Sep-15	5.42%	2.95%	2.47%
Oct-15	5.47%	2.88%	2.59%
Nov-15	5.57%	3.03%	2.54%
Dec-15	5.55%	2.97%	2.58%
Change (Jan-Dec)	1.16%	0.52%	0.64%

Sources: Moody's Investors Service;
<http://www.federalreserve.gov/releases/h15/data.htm>.

1 As seen above, average triple-B utility bond yields have increased by 116 basis points
2 from January 2015 to December 2015. About half of this increase (52 basis points) can be
3 tied to the increase in “risk-free” Treasury bond rates. This is some measure of the increase
4 in interest rates across the markets in general. However, another phenomenon is occurring.
5 As uncertainties facing capital markets increase, investors are requiring more compensation
6 to assume greater risk. In January, triple-B rated utilities were required to pay investors 194
7 basis points over the cost of Treasury bonds to entice them to purchase their debt issues. In
8 December, that additional cost was 258 basis points. The difference (64 basis points), is the
9 additional “cost” investors are now requiring to assume additional risk. For utilities like
10 Avista, uncertainties across the globe and across capital markets are directly leading to higher
11 capital costs.

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

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

18 [W]e also understand that any DCF analysis may be affected by potentially
19 unrepresentative financial inputs to the DCF formula, including those
20 produced by historically anomalous capital market conditions. Therefore,
21 while the DCF model remains the Commission’s preferred approach to
22 determining allowed rate of return, the Commission may consider the extent

1 to which economic anomalies may have affected the reliability of DCF
2 analyses ...²⁴

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

6 Given investors' expectations for rising interest rates and capital costs, the WUTC
7 should consider near-term forecasts for higher public utility bond yields in assessing the
8 reasonableness of individual cost of equity estimates and in evaluating a fair ROE for Avista
9 from within the range of reasonableness. As discussed in Exhibit No.__(AMM-3), this
10 result is supported by economic studies that show that equity risk premiums are higher when
11 interest rates are at very low levels.

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

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

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

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 “Baa1”.

5 **Q. What considerations impact investors’ assessment of the firms in the**
6 **utility industry?**

7 A. Numerous factors have the potential to impact investors’ perceptions of the
8 relative risks inherent in the utility industry and have implications for the financial standing
9 of the utilities themselves. These include the possibility of volatile fuel or purchased power
10 costs, uncertain environmental mandates and associated costs, the implications of declining
11 demand associated with economic weakness or structural changes in usage patterns, and
12 increased reliance on distributed generation or other alternatives to the incumbent utility.
13 Apart from these considerations, utilities may face increasing costs of operating their
14 systems, as well as the financial pressures associated with large capital expenditure
15 programs, which are magnified during periods of turmoil in capital markets.

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

18 A. The pressures of significant capital expenditure requirements, along with the
19 need to refinance maturing debt, reinforce the importance of supporting continued
20 improvement in Avista’s credit standing. Investors understand from past experience in the
21 utility industry that large capital needs can lead to significant deterioration in financial
22 integrity that can constrain access to capital, especially during times of unfavorable capital
23 market conditions. Considering the uncertain state of financial markets, competition with

1 other investment alternatives, and investors’ sensitivity to the potential for market volatility,
2 greater credit strength is a key ingredient in maintaining access to capital at reasonable cost.
3 As Mr. Thies confirms in his testimony, ongoing regulatory support will be a key driver in
4 continuing to maintain and build Avista’s financial health.

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

7 A. Investors recognize that constructive regulation is a key ingredient in
8 supporting utility credit ratings and financial integrity, particularly during times of adverse
9 conditions. As Moody’s noted, “the regulatory environment is the most important driver of
10 our outlook because it sets the pace for cost recovery,”²⁵ With respect to Avista specifically,
11 the major bond rating agencies have explicitly cited the potential that adverse regulatory
12 rulings could compromise the Company’s credit standing. S&P observed that the stable
13 outlook on Avista Corp. is due in part to their expectation that the company “will continue to
14 effectively manage regulatory risks”²⁶, and concluded that “greater borrowing or increased
15 rate lag, a large deferral, or adverse regulatory decisions” could lead to a downgrade.
16 Similarly, Moody’s concluded that “Avista’s ratings could be negatively impacted if the level
17 of regulatory support wanes.”²⁷ Further strengthening Avista’s financial integrity is

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 19, 2015).

²⁷ Moody’s Investors Service, “Credit Opinion: Avista Corp.,” *Global Credit Research* (Mar. 11, 2015).

1 imperative to ensure that the Company has the capability to maintain an investment grade
2 rating while confronting large capital expenditures and other potential challenges.²⁸

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

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

10 **E. Capital Structure**

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

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

²⁸ As noted in the testimony of Mr. Thies, continued regulatory support will be instrumental in achieving Avista's objective of a BBB+ rating from S&P, which is consistent with the average credit standing in the electric utility industry.

1 **Q. What common equity ratio is implicit in Avista’s requested capital**
2 **structure?**

3 A. Avista’s capital structure is presented in the testimony of Mr. Thies. As
4 summarized in his testimony, the proposed common equity ratio used to compute Avista’s
5 overall rate of return is 48.5 percent in this filing.

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

7 A. As shown on Exhibit No.__(AMM-5), for the 16 firms in the Utility Group,
8 common equity ratios at December 31, 2014 ranged between 30.2 percent and 54.8 percent
9 and averaged 48.5 percent. Adjusting the average capitalization to include short-term debt in
10 the same proportion as Avista would result in an adjusted equity ratio of 47.0 percent.

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

13 A. As shown on Exhibit No.__(AMM-5), Value Line expects an average
14 common equity ratio for the proxy group of utilities of 49.8 percent for its three-to-five year
15 forecast horizon, with the individual common equity ratios ranging from 35.0 percent to 59.0
16 percent. Adjusting the average capitalization to include short-term debt in the same
17 proportion as Avista would result in an adjusted equity ratio of 48.3 percent. The WUTC has
18 previously observed that “[i]t is appropriate ... to afford more weight to forward
19 considerations than to historic conditions as we determine the appropriate equity ratio to be
20 embedded in prospective rates.”²⁹

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

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

3 A. The 48.5 percent common equity ratio requested by Avista is entirely
4 consistent with the range of equity ratios maintained by the firms in the Utility Group and is
5 in-line with the 47.0 percent and 48.3 percent adjusted average equity ratios at year-end 2014
6 and based on Value Line’s near-term expectations, respectively.

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

9 A. As discussed earlier, utilities are facing rising cost structures, the need to
10 finance significant capital investment plans, uncertainties over accommodating economic and
11 financial market uncertainties, and ongoing regulatory risks. Coupled with the potential for
12 turmoil in capital markets, these considerations warrant a stronger balance sheet to deal with
13 an increasingly uncertain environment. A more conservative financial profile, in the form of
14 a higher common equity ratio, is consistent with increasing uncertainties and the need to
15 maintain the continuous access to capital under reasonable terms that is required to fund
16 operations and necessary system investment, including times of adverse capital market
17 conditions.

18 Moody’s has repeatedly warned investors of the risks associated with debt leverage
19 and fixed obligations and advised utilities not to squander the opportunity to strengthen the

1 balance sheet as a buffer against future uncertainties.³⁰ Similarly, S&P noted that, “we
2 generally consider a debt to capital level of 50% or greater to be aggressive or highly
3 leveraged for utilities.”³¹

4 **Q. What other factors do investors consider in their assessment of a**
5 **company’s capital structure?**

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

17 These commitments have been repeatedly cited by major bond rating agencies in
18 connection with assessments of utility financial risks.³² The capital structure ratios presented

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).

1 earlier do not include imputed debt associated with power purchase agreements or the impact
2 of other off-balance sheet obligations. Avista has continued to add to its purchased power
3 portfolio, most recently with a 30-year PPA in connection with renewable resources from the
4 Palouse Wind Project.

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

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

17 Avista's capital structure is consistent with industry benchmarks and reflects the
18 challenges posed by its resource mix, the burden of significant capital spending requirements,
19 and the Company's ongoing efforts to strengthen its credit standing and support access to
20 capital on reasonable terms. The reasonableness of Avista's requested capital structure is

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

1 reinforced by the importance of supporting continued investment in system improvements,
2 even during times of adverse capital market conditions.

3 **III. CAPITAL MARKET ESTIMATES**

4 **Q. What is the purpose of this section?**

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

8 **A. Quantitative Analyses**

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

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

19 We value each of the methodologies used to calculate the cost of equity and
20 do not find it appropriate to select a single method as being the most accurate
21 or instructive. Financial circumstances are constantly shifting and changing,

1 and we welcome a robust and diverse record of evidence based on a variety of
2 analytics and cost of capital methodologies.³³

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

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

- 9 1. S&P corporate credit ratings of BBB-, BBB, or BBB+;
- 10 2. Moody's issuer ratings of Baa2, Baa1, or A3;
- 11 3. Value Line Safety Rank of "2" or "3";
- 12 4. No involvement in a major merger or acquisition; and,
- 13 5. Currently paying common dividends with no recent dividend cuts.

14 I refer to this group of 16 comparable-risk firms as the "Utility Group."³⁴

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

16 A. Table 4 compares the Utility Group with Avista across four key indicators of
17 investment risk:

³³ *PacifiCorp D/B/A Pacific Power & light Company*, Docket UE-100749, Final Order at P 91 (Mar. 25, 2011).

³⁴ 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).

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TABLE 4
COMPARISON OF RISK INDICATORS

<u>Proxy Group</u>	<u>S&P</u>	<u>Moody's</u>	<u>Value Line</u>		
			<u>Safety Rank</u>	<u>Financial Strength</u>	<u>Beta</u>
Utility Group	BBB	Baa1	2	B++	0.77
Avista	BBB	Baa1	2	A	0.80

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

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

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

11 A. My application of the DCF model, which is discussed in greater detail in
12 Exhibit No.__(AMM-3), considered three alternative measures of expected earnings
13 growth, as well as the sustainable growth rate based on the relationship between expected
14 retained earnings and earned rates of return (“br+sv”). As shown on Exhibit No.__(AMM-
15 6) and summarized below in Table 5, after eliminating illogical values,³⁵ application of the
16 constant growth DCF model resulted in the following cost of equity estimates:

³⁵ I provide a detailed explanation of my DCF analysis, including the evaluation of individual estimates, in Exhibit No.__(AMM-3).

TABLE 5
DCF RESULTS – UTILITY GROUP

<u>Growth Rate</u>	<u>Cost of Equity</u>	
	<u>Average</u>	<u>Midpoint</u>
Value Line	10.4%	11.3%
IBES	9.4%	9.7%
Zacks	8.8%	9.0%
br + sv	9.1%	10.4%

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 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.

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

2 A. As shown on page 1 of Exhibit No.____(AMM-8), my forward-looking
3 application of the ECAPM model indicated an average ROE of 9.8 percent for the Utility
4 Group. Adjusting the 9.8 percent theoretical ECAPM result to incorporate the size
5 adjustment results in an indicated cost of common equity of 10.8 percent.

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

7 A. Yes. As discussed earlier, there is widespread consensus that interest rates
8 will increase materially as the economy continues to strengthen. Accordingly, in addition to
9 the use of current bond yields, I also applied the CAPM based on the forecasted long-term
10 Treasury bond yields developed based on projections published by Value Line, IHS Global
11 Insight and Blue Chip. As shown on page 2 of Exhibit No.____(AMM-8), incorporating a
12 forecasted Treasury bond yield for 2016-2020 implied an average cost of equity of 10.0
13 percent for the Utility Group, or 11.0 percent after adjusting for the impact of relative size.

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

15 A. My applications of the traditional CAPM were based on the same forward-
16 looking market rate of return, risk-free rates, and beta values discussed above in connection
17 with the ECAPM. As shown on page 1 of Exhibit No.____(AMM-9), applying the forward-
18 looking CAPM approach to the firms in the Utility Group results in an average cost of equity
19 estimate of 10.3 percent after incorporating the size adjustment corresponding to the market
20 capitalization of the individual utilities.

21 As shown on page 2 of Exhibit No.____(AMM-9), incorporating a forecasted Treasury
22 bond yield for 2016-2020 implied an average cost of equity of approximately 10.6 percent
23 after adjusting for the impact of relative size.

1 **Q. How did you implement the risk premium method?**

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

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

9 A. As shown on page 1 of Exhibit No.____(AMM-10), adding an adjusted risk
10 premium of 5.26 percent to the six-month average yield on triple-B utility bonds at
11 December 2015 of 5.41 percent resulted in an implied cost of equity of approximately 10.7
12 percent. As shown on page 2 of Exhibit No.____(AMM-10), incorporating a forecasted yield
13 for 2016-2020 and adjusting for changes in interest rates since the study period implied a cost
14 of equity of approximately 11.7 percent.

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

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

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

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

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

18 A. Yes. First, an adjustment for flotation costs associated with past equity issues
19 is appropriate, even when the utility is not contemplating any new sales of common stock.
20 The need for a flotation cost adjustment to compensate for past equity issues has been
21 recognized in the financial literature. In a *Public Utilities Fortnightly* article, for example,
22 Brigham, Aberwald, and Gapenski demonstrated that even if no further stock issues are
23 contemplated, a flotation cost adjustment in all future years is required to keep shareholders

1 whole, and that the flotation cost adjustment must consider total equity, including retained
2 earnings.³⁷ Similarly, *New Regulatory Finance* contains the following discussion:

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

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

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

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

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

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

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 *Id.* at 323.

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

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

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

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

15 **C. Non-Utility DCF Model**

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

18 A. As indicated earlier, I also present a DCF analysis for a low risk group of non-
19 utility firms, with which Avista must compete for investors' money. Under the regulatory
20 standards established by *Hope* and *Bluefield*, the salient criterion in establishing a meaningful
21 benchmark to evaluate a fair ROE is relative risk, not the particular business activity or
22 degree of regulation. With regulation taking the place of competitive market forces, required

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

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

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

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

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

1 and uncertainties.”⁴² It does not restrict consideration to other utilities. Similarly, the *Hope*
2 case states:

3 By that standard the return to the equity owner should be commensurate with
4 returns on investments in other enterprises having corresponding risks.⁴³

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

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

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

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

17 A. Table 6 compares the Non-Utility Group with the Utility Group and Avista
18 across the four key risk measures discussed earlier:

⁴² *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n*, 262 U.S. 679 (1923).

⁴³ *Federal Power Comm’n v. Hope Natural Gas Co.* (320 U.S. 391, 1944).

1
2

TABLE 6
COMPARISON OF RISK INDICATORS

<u>Proxy Group</u>	<u>S&P</u>	<u>Moody's</u>	<u>Value Line</u>		
			<u>Safety Rank</u>	<u>Financial Strength</u>	<u>Beta</u>
Non-Utility	A-	A2	1	A+	0.68
Utility Group	BBB	Baa1	2	B++	0.77
Avista	BBB	Baa1	2	A	0.80

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

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

9 A. As shown on Exhibit No.____(AMM-12), I applied the DCF model to the non-
10 utility companies using the same analysts EPS growth projections described earlier for the
11 Utility Group. As summarized below in Table 7, after eliminating illogical values,
12 application of the constant growth DCF model resulted in the following cost of equity
13 estimates:

1 **TABLE 7**
2 **DCF RESULTS – NON-UTILITY GROUP**

3 Cost of Equity
4 Growth Rate Average Midpoint
5 Value Line 9.9% 11.3%
6 IBES 10.3% 10.3%
7 Zacks 10.7% 11.1%
8
9

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

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

20 Rather, the divergence between the DCF results for these two groups of utility and
21 non-utility firms can be attributed to the fact that DCF estimates invariably depart from the
22 returns that investors actually require because their expectations may not be captured by the
23 inputs to the model, particularly the assumed growth rate. Because the actual cost of equity
24 is unobservable, and DCF results inherently incorporate a degree of error, the cost of equity
25 estimates for the Non-Utility Group provide an important benchmark in evaluating a fair
26 ROE for Avista. There is no basis to conclude that DCF results for a group of utilities would
27 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. IMPACT OF REGULATORY MECHANISMS**

4 **Q. Would any adjustment to the ROE be warranted due to Avista’s ERM or**
5 **attrition adjustment?**

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

10 [T]he threshold it must meet to true-up uncollected costs in Washington is
11 high, and the company does not automatically collect deferred costs. Each
12 year, uncollected costs are subject to defined sharing bands, allowing the
13 company to potentially defer certain portions for collection from customers.
14 This mechanism is weaker than that for some utilities operating in western
15 states with high hydrological or significant gas generation exposure.⁴⁴

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

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

⁴⁴ Standard & Poor’s Corporation, “Avista Corp.,” *RatingsDirect* (Jul. 26, 2011).

1 simply helps to ensure that the Company has a reasonable opportunity to actually earn the
2 allowed ROE, which compensates investors for the use of their capital.

3 **Q. Does the fact that, starting in January 2015, Avista’s electric and gas rates**
4 **include a revenue decoupling mechanism warrant any adjustment in your evaluation of**
5 **a fair ROE?**

6 A. No. The WUTC’s approval of decoupling is supportive of Avista’s financial
7 integrity, but there is no evidence to suggest that implementation of these mechanisms has
8 altered the relative risk of Avista enough to warrant any adjustment to its ROE. As noted
9 earlier, the investment community and the major credit rating agencies in particular, pay
10 close attention to the regulatory framework, including various adjustment mechanisms.
11 Based largely on the expanded use of ratemaking mechanisms such as revenue decoupling
12 and cost-recovery riders, Moody’s upgraded most regulated utilities in January 2014.⁴⁵
13 Recognizing this industry trend, and the prospective ratemaking mechanisms already
14 approved by the WUTC for Puget Sound Energy, Moody’s premised its assessment of
15 Avista’s risks on the expectation that “similar treatment will be afforded to Avista and that the
16 company will have improved cost recovery mechanisms (e.g., decoupling).”⁴⁶ In other
17 words, the implications of revenue decoupling and other regulatory mechanisms are already
18 fully reflected in Avista’s credit ratings, which are comparable to those of the proxy group
19 used to estimate the cost of equity.

⁴⁵ Moody’s Investors Service, “US utility sector upgrades driven by stable and transparent regulatory frameworks,” *Sector Comment* (Feb. 3, 2014).

⁴⁶ Moody’s Investors Service, “Avista Corp.,” *Global Credit Research* (Mar. 28, 2014).

1 Moreover approval of revenue decoupling does not remove overhanging regulatory
2 risks. Avista remains exposed to future determinations as to the prudence of its expenditures
3 and investments, and investors continue to evaluate expectations for balance in the regulatory
4 framework and in establishing allowed ROEs.

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

7 A. No. Adjustment mechanisms and cost trackers have been increasingly
8 prevalent in the utility industry in recent years. In response to the increasing risk sensitivity
9 of investors to uncertainty over fluctuations in costs and the importance of advancing other
10 public interest goals such as reliability, energy conservation, and safety, utilities and their
11 regulators have sought to mitigate some of the cost recovery uncertainty and align the interest
12 of utilities and their customers through a variety of adjustment mechanisms.

13 Reflective of this trend, the companies in the electric and gas utility industries operate
14 under a wide variety of cost adjustment mechanisms, which range from riders to recover bad
15 debt expense and post-retirement employee benefit costs to revenue decoupling and
16 adjustment clauses designed to address rising capital investment outside of a traditional rate
17 case and increasing costs of environmental compliance measures. As Regulatory Research
18 Associates concluded in its recent review of adjustment clauses, “some form of decoupling is
19 in place in the vast majority of jurisdictions.”⁴⁷ Similarly, the majority of gas utilities benefit
20 from revenue decoupling, along with a variety of other provisions that enhance their ability

⁴⁷ Regulatory Research Associates, “Adjustment Clauses, A State-by-State Overview,” *Regulatory Focus* (Jul. 1, 2014).

1 to recover operating and capital costs on a timely basis.⁴⁸ The firms in the Non-Utility Group
2 also have the ability to alter prices in response to rising production costs, with the added
3 flexibility to withdraw from the market altogether. As a result, the mitigation in risks
4 associated with utilities' ability to adjust revenues and attenuate the risk of cost recovery is
5 already reflected in the cost of equity range determined earlier, and no separate adjustment to
6 Avista's ROE is necessary or warranted.

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

9 A. Yes. I evaluated the regulatory mechanisms approved for the other utilities in
10 the Utility Group using data reported in the most recent Form 10-K reports filed with the
11 Securities and Exchange Commission, which is publicly available and free of charge to
12 investors. Reflective of industry trends, the companies in the Utility Group operate under a
13 variety of regulatory adjustment mechanisms.⁴⁹ As summarized on Exhibit
14 No.__(AMM-13), these mechanisms are ubiquitous and wide ranging. For example, eleven
15 of the firms benefit from some form of revenue decoupling or operate in jurisdictions that
16 allow the use of future test years. Many of these utilities operate under mechanisms that
17 allow for cost recovery of infrastructure investment outside a formal rate proceeding, as well
18 as the ability to implement periodic rate adjustments to reflect changes in a diverse range of
19 operating and capital costs, including expenditures related to environmental mandates,
20 conservation programs, transmission costs, and storm recovery efforts.

⁴⁸ See, e.g., American Gas Association, *Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List* (Jan. 2015).

⁴⁹ 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.

1 **Q. Has the Commission acknowledged the prevalence of risk mitigating**
2 **mechanisms in the industry?**

3 A. Yes, the Commission found the following in a recent Puget Sound Energy
4 case:

5 We believe it is correct that cost of capital analysis cannot be expected to
6 produce results that support measurement of decrements to ROE ostensibly
7 due to approval of one risk mitigation mechanism or another. Nor would cost
8 of capital analysis be adequate to the task of identifying increments to ROE
9 that might be considered due to some measure of additional risk a company
10 takes on at some point in time. The Commission has never tried to account
11 separately in its ROE determinations for specific risks or risk mitigating
12 factors, nor should it. Circumstances in the industry today and modern
13 regulatory practice that have led to a proliferation of risk reducing
14 mechanisms being in place for utilities throughout the United States make it
15 particularly inappropriate and unnecessary to consider such an undertaking.
16 **The effects of these risk mitigating factors was by 2013, and is today, built**
17 **into the data experts draw from the samples of companies they select as**
18 **proxies.**⁵⁰ (Emphasis added)

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

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

24 Those mechanisms differ from company to company and jurisdiction to
25 jurisdiction. Regardless of their nuances, the intent is the same; reduce cash-
26 flow volatility year to year and place recent capital expenditures in rates as
27 quickly as possible. Investors are aware of these mechanisms and their
28 benefits are a factor when investors value those stocks. Thus, any risk

⁵⁰ *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Dockets UE-130130 and UG-130138 (consolidated) et al., Order 15.14 at 69, ¶ 155 (June 29, 2015). Internal citations omitted.

1 reduction associated with these mechanisms is captured in the market data
2 (stock prices) used in Staff's analysis.⁵¹

3 Similarly, the mitigation in risks associated with Avista's ability to attenuate regulatory lag
4 through various adjustment mechanisms is already reflected in the results of the quantitative
5 methods presented in my testimony.

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

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

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

20 A. Yes.

⁵¹ *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.