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**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION ) CASE NO. AVU-E-16-03  
OF AVISTA CORPORATION FOR THE )  
AUTHORITY TO INCREASE ITS RATES )  
AND CHARGES FOR ELECTRIC SERVICE ) DIRECT TESTIMONY  
TO ELECTRIC CUSTOMERS IN THE ) OF  
STATE OF IDAHO ) ADRIEN M. MCKENZIE  
\_\_\_\_\_ )

FOR AVISTA CORPORATION

(ELECTRIC)

DIRECT TESTIMONY OF ADRIEN M. MCKENZIE

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Exhibit No. 3

Schedule 1	- Qualifications of Adrien M. McKenzie
Schedule 2	- Description of Quantitative Analyses
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Schedule 9	- Electric Utility Risk Premium
Schedule 10	- Expected Earnings Approach
Schedule 11	- Constant Growth DCF Model - Non-Utility Group

1 **I. INTRODUCTION**

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

3 A. Adrien M. McKenzie, 3907 Red River, Austin, Texas,  
4 78751.

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

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

9 **Q. Please describe your educational background and**  
10 **professional experience.**

11 A. A description of my background and qualifications,  
12 including a resume containing the details of my experience,  
13 is attached as Exhibit No. 3, Schedule 1.

14 **A. Overview**

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

16 A. The purpose of my testimony is to present to the  
17 Idaho Public Utilities Commission (the "Commission" or  
18 "IPUC") my independent evaluation of the fair rate of return  
19 on equity ("ROE") for the jurisdictional electric utility  
20 operations of Avista Corp. ("Avista" or "the Company"). In  
21 addition, I also examined the reasonableness of Avista's

1 capital structure, considering both the specific risks faced  
2 by the Company and other industry guidelines.

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

6 A. To prepare my testimony, I used information from a  
7 variety of sources that would normally be relied upon by a  
8 person in my capacity. I am familiar with the organization,  
9 finances, and operations of Avista from my participation in  
10 prior proceedings before the IPUC, the Washington Utilities  
11 and Transportation Commission ("WUTC") and the Oregon Public  
12 Utility Commission. In connection with the present filing, I  
13 considered and relied upon corporate disclosures, publicly  
14 available financial reports and filings, and other published  
15 information relating to Avista. I have also visited the  
16 Company's main offices and had discussions with management in  
17 order to better familiarize myself with Avista's utility  
18 operations. My evaluation also relied upon information  
19 relating to current capital market conditions and  
20 specifically to current investor perceptions, requirements,  
21 and expectations for electric utilities. These sources,  
22 coupled with my experience in the fields of finance and  
23 utility regulation, have given me a working knowledge of the

1 issues relevant to investors' required return for Avista, and  
2 they form the basis of my analyses and conclusions.

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

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

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

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

8           A. The ROE is the cost of attracting and retaining  
9 common equity investment in the utility's physical plant and  
10 assets. This investment is necessary to finance the asset  
11 base needed to provide utility service. Investors commit  
12 capital only if they expect to earn a return on their  
13 investment commensurate with returns available from  
14 alternative investments with comparable risks. Moreover, a  
15 fair and reasonable ROE is integral in meeting sound  
16 regulatory economics and the standards set forth by the U.S.  
17 Supreme Court in the *Bluefield*<sup>1</sup> and *Hope*<sup>2</sup> cases, which state  
18 that a utility's allowed ROE should be sufficient to: 1)  
19 fairly compensate the utility's investors, 2) enable the  
20 utility to offer a return adequate to attract new capital on  
21 reasonable terms, and 3) maintain the utility's financial

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

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

1 integrity. These standards should allow the utility to  
2 fulfill its obligation to provide reliable service while  
3 meeting the needs of customers through necessary system  
4 replacement and expansion, but they can only be met if the  
5 utility has a reasonable opportunity to actually earn its  
6 allowed ROE.

7 **B. Summary of Conclusions**

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

9 A. The results of my analyses are presented on page 1  
10 of Exhibit No. 3, Schedule 3, and in Table 1, below:

1  
2

**TABLE 1**  
**SUMMARY OF RESULTS**

<u>Utility DCF</u>	<u>Average</u>	<u>Midpoint</u>
Value Line	9.06% <sup>2</sup>	10.37% <sup>19</sup>
IBES	9.45% <sup>6</sup>	9.47% <sup>7</sup>
Zacks	9.15% <sup>4</sup>	9.26% <sup>5</sup>
Internal br + sv	8.35% <sup>1</sup>	9.14% <sup>3</sup>
<u>Non-Utility DCF</u>		
Value Line	9.59% <sup>8</sup>	10.12% <sup>14</sup>
IBES	10.31% <sup>17</sup>	10.71% <sup>23</sup>
Zacks	10.49% <sup>21</sup>	11.18% <sup>26</sup>
<u>CAPM</u>		
Historical Bond Yield	9.66% <sup>10</sup>	9.60% <sup>9</sup>
Projected Bond Yield	9.96% <sup>12</sup>	9.90% <sup>11</sup>
<u>Empirical CAPM</u>		
Historical Bond Yield	10.14% <sup>15</sup>	10.10% <sup>13</sup>
Projected Bond Yield	10.38% <sup>20</sup>	10.35% <sup>18</sup>
<u>Utility Risk Premium</u>		
Historical Bond Yields	10.70% <sup>22</sup>	
Projected Bond Yields	11.74% <sup>27</sup>	
<u>Expected Earnings</u>		
Industry	10.85% <sup>25</sup>	
Proxy Group	10.14% <sup>16</sup>	10.76% <sup>24</sup>
<u>Cost of Equity Recommendation</u>		
Cost of Equity Range	9.5% --	10.7%
<u>Flotation Cost Adjustment</u>		
Dividend Yield	3.3%	
Flotation Cost Percentage	3.6%	
Adjustment	0.12%	
<u>ROE Recommendation</u>	<b>9.62%</b> --	<b>10.82%</b>

3

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





- 1 • In order to reflect the risks and prospects associated  
2 with Avista's jurisdictional utility operations, my  
3 analyses focused on a proxy group of 16 other  
4 utilities with comparable investment risks;
- 5 • Because investors' required return on equity is  
6 unobservable and no single method should be viewed in  
7 isolation, I applied the DCF, CAPM, ECAPM, and risk  
8 premium methods to estimate a fair ROE for Avista; as  
9 well as referencing the expected earnings approach;
- 10 • Based on the results of these analyses, and giving  
11 less weight to extremes at the high and low ends of  
12 the range, I concluded that the cost of equity for the  
13 proxy group of utilities is in the **9.5 percent to 10.7**  
14 **percent** range, or **9.62 percent to 10.82 percent** after  
15 incorporating an adjustment to account for the impact  
16 of common equity flotation costs; and,
- 17 • As reflected in the testimony of Mr. Thies, Avista is  
18 requesting an ROE of **9.9 percent**, which falls below  
19 the **10.22 percent** midpoint of my recommended range.  
20 Considering capital market expectations, the exposures  
21 faced by Avista, and the economic requirements  
22 necessary to maintain financial integrity and support  
23 additional capital investment even under adverse  
24 circumstances, it is my opinion that 9.9 percent  
25 represents a conservative ROE for Avista.

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

28 A. My recommendation is reinforced by the following  
29 findings:

- 30 • The reasonableness of a 9.9 percent ROE for Avista is  
31 supported by the need to consider the challenges to  
32 the Company's credit standing:
  - 33 o The pressure of funding significant capital  
34 expenditures of approximately \$1.2 billion over  
35 the next three years heighten the uncertainties  
36 associated with Avista, especially given that the  
37 Company's existing rate base is approximately \$2.8  
38 billion;
  - 39 o Because of Avista's reliance on hydroelectric  
40 generation and increasing dependence on natural

1 gas fueled capacity, the Company is exposed to  
2 relatively greater risks of power cost volatility,  
3 even with the Power Cost Adjustment Mechanism  
4 ("PCA");

5 o Widespread expectations for higher interest rates  
6 emphasize the implication of considering the  
7 impact of projected bond yields in evaluating the  
8 results of the ECAPM and risk premium methods;  
9 and,

10 o My conclusion that a 9.9 percent ROE for Avista is  
11 a conservative estimate of investors' required  
12 return is also reinforced by the greater  
13 uncertainties associated with Avista's relatively  
14 small size.

15 • Sensitivity to financial market and regulatory  
16 uncertainties has increased dramatically and investors  
17 recognize that constructive regulation is a key  
18 ingredient in supporting utility credit standing and  
19 financial integrity;

20 • Providing Avista with the opportunity to earn a return  
21 that reflects these realities is an essential  
22 ingredient to support the Company's financial  
23 position, which ultimately benefits customers by  
24 ensuring reliable service at lower long-run costs;

25 • Continued support for Avista's financial integrity,  
26 including a reasonable ROE, is imperative to ensure  
27 that the Company has the capability to maintain and  
28 build its credit standing while confronting potential  
29 challenges associated with funding infrastructure  
30 development necessary to meet the needs of its  
31 customers; and,

32 • Regulatory mechanisms approved for Avista are viewed  
33 as supportive by investors, and the implications of  
34 the Fixed Cost Adjustment Mechanism ("FCA") and other  
35 mechanisms are fully reflected in Avista's credit  
36 ratings, which are comparable to those of the proxy  
37 group used to estimate the cost of equity. Because  
38 the utilities in my proxy group operate under a wide  
39 variety of regulatory mechanisms, including provisions  
40 akin to the FCA, the effects of the Company's  
41 regulatory mechanisms are already reflected in the  
42 results of my analyses.

1           These findings indicate that the 9.9 percent ROE  
2 requested by Avista is reasonable and should be approved.

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

5           A.   Apart from the results of the quantitative methods  
6 summarized above, it is crucial to recognize the importance  
7 of supporting the Company's financial position so that Avista  
8 remains prepared to respond to unforeseen events that may  
9 materialize in the future.   Potential challenges in the  
10 economic and financial market environment, including rising  
11 interest rates and capital market volatility, highlight the  
12 imperative of continuing to build the Company's financial  
13 strength in order to attract the capital needed to secure  
14 reliable service at a reasonable cost for customers.   The  
15 reasonableness of the Company's requested ROE is reinforced  
16 by the fact that, due to broad-based expectations for higher  
17 bond yields, current cost of capital estimates are likely to  
18 understate investors' requirements at the conclusion of this  
19 proceeding and beyond.

20           **Q.   Does an ROE of 9.9 percent represent a reasonable**  
21 **cost for Avista's customers to pay?**

22           A.   Yes.   Investors have many options vying for their  
23 money.   They make investment capital available to Avista only  
24 if the expected returns justify the risk.   Customers will

1 enjoy reliable and efficient service so long as investors are  
2 willing to make the capital investments necessary to maintain  
3 and improve Avista's utility system. Providing an adequate  
4 return to investors is a necessary cost to ensure that  
5 capital is available to Avista on reasonable terms now and in  
6 the future. If regulatory decisions increase risk or limit  
7 returns to levels that are insufficient to justify the risk,  
8 investors will look elsewhere to invest capital.

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

11 A. Based on my evaluation, I concluded that a common  
12 equity ratio of 50.0 percent represents a reasonable basis  
13 from which to calculate Avista's overall rate of return.  
14 This conclusion was based on the following findings:

- 15 • Avista's requested capitalization is consistent with  
16 the Company's need to maintain its credit standing and  
17 financial flexibility as it seeks to raise additional  
18 capital to fund significant system investments and  
19 meet the requirements of its service territory;
- 20 • Avista's proposed common equity ratio is entirely  
21 consistent with the range of capitalizations for the  
22 proxy utilities, both for year-end 2015 and based on  
23 the near-term expectations of the Value Line  
24 Investment Survey ("Value Line"); and,
- 25 • The requested capitalization reflects the importance  
26 of an adequate equity layer to accommodate Avista's  
27 operating risks and the pressures of funding  
28 significant capital investments. This is reinforced  
29 by the need to consider the impact of uncertain  
30 capital market conditions, as well as off-balance

1 sheet commitments such as purchased power agreements,  
2 which carry with them some level of imputed debt.

## 3 **II. RISKS OF AVISTA**

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

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

### 8 **A. Operating Risks**

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

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

20 A reduction in hydro generation typically increases  
21 an electric utility's costs by requiring it to buy  
22 replacement power or run more expensive generation  
23 to serve customer loads. Low hydro generation can  
24 also reduce utilities' opportunity to make off-  
25 system sales. At the same time, low hydro years  
26 increase regional wholesale power prices, creating  
27 potentially a double impact - companies have to buy

1 more power than under normal conditions, paying  
2 higher prices.<sup>3</sup>

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

8 S&P has noted that Avista, along with Idaho Power  
9 Company, "face the most substantial risks despite their PCAs  
10 and cost-update mechanisms,"<sup>4</sup> and concluded that Avista's  
11 "Northwest hydropower has been subject to significant  
12 volatility in recent years, so [Avista] is exposed to  
13 purchased power costs."<sup>5</sup>

14 Similarly, Moody's Investors Service ("Moody's") has  
15 recognized that, "Avista's high dependency on hydro resources  
16 (approximately 50% of its production comes from hydro fueled  
17 electric generation resources) is viewed as a supply  
18 concentration risk which also lends to the potential for  
19 metric volatility, especially since hydro levels, due to

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

<sup>4</sup> *Id.*

<sup>5</sup> Standard & Poor's Corporation, "Industry Report Card," *RatingsDirect* (Apr. 19, 2013).

1 weather, is a factor outside of management's control."<sup>6</sup> More  
2 recently, S&P affirmed the importance of constructive  
3 regulation in light of the potential need "to purchase power  
4 for customers when hydro power is unavailable."<sup>7</sup> Avista's  
5 reliance on purchased power to meet shortfalls in  
6 hydroelectric generation magnifies the importance of  
7 strengthening financial flexibility.

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

11 A. Yes. Avista will require capital investment to  
12 meet customer growth, provide for necessary maintenance, as  
13 well as fund new investment in electric generation,  
14 transmission and distribution facilities. Utility capital  
15 additions are expected to total approximately \$375 million  
16 for 2016, and \$405 million for each of the years 2017 through  
17 2019. This represents a substantial investment given  
18 Avista's current rate base of approximately \$2.8 billion.

19 Continued support for Avista's financial integrity and  
20 flexibility will be instrumental in attracting the capital

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<sup>6</sup> Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 17, 2011).

<sup>7</sup> Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (May 19, 2015).



1 necessary to fund these projects in an effective manner.  
2 Investors are aware of the challenges posed by burdensome  
3 capital expenditure requirements, especially in light of  
4 ongoing capital market and economic uncertainties, and  
5 Moody's has noted that increasing capital expenditures are a  
6 primary credit concern for Avista.<sup>8</sup>

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

9 A. Yes. A firm's relative size has important  
10 implications for investors in their evaluation of alternative  
11 investments, and it is well established that smaller firms  
12 are more risky than larger firms. With a market  
13 capitalization of approximately \$2.4 billion, Avista is one  
14 of the smallest publicly traded utility holding companies  
15 followed by Value Line, which have an average capitalization  
16 of approximately \$11.8 billion.<sup>9</sup>

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

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<sup>8</sup> Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 11, 2015).

<sup>9</sup> [www.valueline.com](http://www.valueline.com) (retrieved Apr. 25, 2016).

1 their relative lack of diversification and lower financial  
2 resiliency.<sup>10</sup> These greater risks imply a higher required  
3 rate of return, and there is ample empirical evidence that  
4 investors in smaller firms realize higher rates of return  
5 than in larger firms.<sup>11</sup> Accepted financial doctrine holds  
6 that investors require higher returns from smaller companies,  
7 and unless that compensation is provided in the rate of  
8 return allowed for a utility, the legal tests embodied in the  
9 *Hope* and *Bluefield* cases cannot be met.

#### 10 **B. Outlook for Capital Costs**

11 **Q. What are the implications of current capital market**  
12 **conditions in evaluating a fair ROE?**

13 A. Current capital market conditions continue to be  
14 deeply affected by the Federal Reserve's unprecedented  
15 monetary policy actions, which were designed to push interest  
16 rates to historically low levels in an effort to stimulate  
17 the economy and bolster employment. Since the Great  
18 Recession, investors have also had to contend with a level of

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<sup>10</sup> 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).

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

1 economic uncertainty that has been unprecedented in recent  
2 history. The ongoing potential for renewed turmoil in the  
3 capital markets has been seen repeatedly, and in response to  
4 heightened uncertainties in recent years, investors have  
5 repeatedly sought a safe haven in U.S. government bonds. As  
6 a result of this "flight to safety," Treasury bond yields  
7 have been pushed significantly lower in the face of  
8 political, economic, and capital market risks. While serving  
9 as President of the Federal Reserve Bank of Philadelphia,  
10 Charles Plosser observed that U.S. interest rates were  
11 unprecedentedly low, and "outside historical norms."<sup>12</sup>

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

14 A. No. Investors continue to anticipate that interest  
15 rates will increase significantly from present levels. For  
16 example, the March 4, 2016 quarterly economic review from the  
17 Value Line Investment Survey ("Value Line") anticipates that  
18 corporate bond yields will increase 180 basis points over the  
19 next five years. Figure 2 below compares current interest  
20 rates on 10-year and 30-year Treasury bonds, triple-A rated

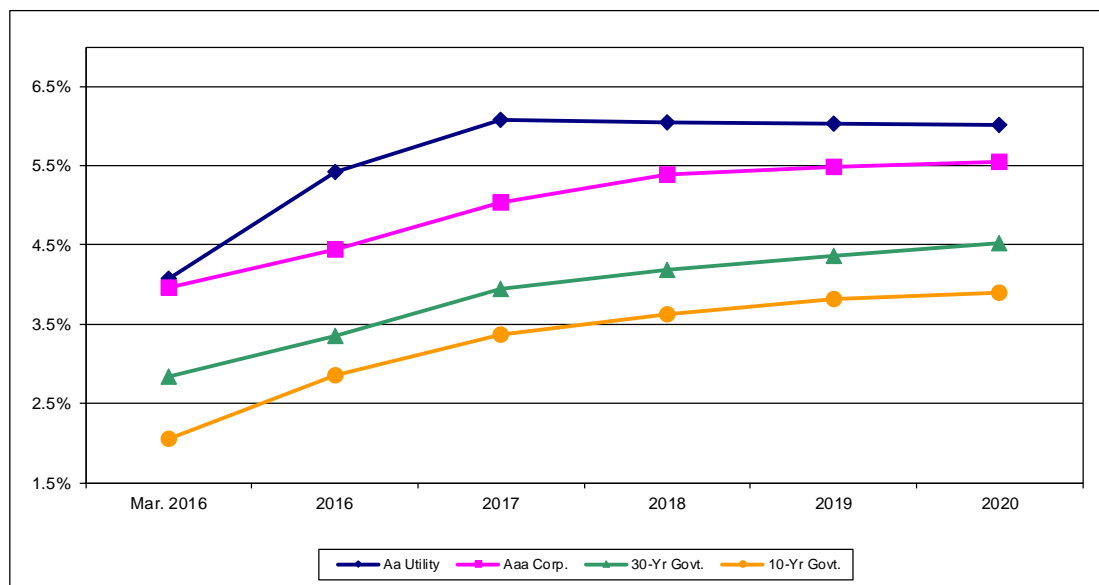
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<sup>12</sup> Barnato, Katy, "Fed's Plosser: Low rates 'should make us nervous'," CNBC (Nov. 11, 2014). The average yield on 10-year Treasury bonds for the six-months ended March 2016 was 2.1%, which is even lower than the 2.3% yields prevailing at the time of Mr. Plosser's observations.

1 corporate bonds, and double-A rated utility bonds with near-  
2 term projections from Value Line, IHS Global Insight, Blue  
3 Chip Financial Forecasts ("Blue Chip"), and the Energy  
4 Information Administration ("EIA"), which are sources that  
5 are highly regarded and widely referenced:

6  
7

**FIGURE 2**  
**INTEREST RATE TRENDS**



Source:

Value Line Investment Survey, Forecast for the U.S. Economy (Mar. 4, 2016)  
IHS Global Insight, The U.S. Economy: The 30-Year Focus (Third-Quarter 2015)  
Energy Information Administration, Annual Energy Outlook 2015 (April 2015)  
Blue Chip Financial Forecasts, Vol. 34, No. 6 (Dec. 1, 2015)

8 As evidenced above, projections by investment advisors,  
9 forecasting services, and government agencies support the  
10 general consensus in the investment community that the  
11 present low level of long-term interest rates will not be  
12 sustained.

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

5           A. No. The Federal Reserve's long-anticipated move to  
6 increase the federal funds rate represents a first, and very  
7 modest, step towards implementing the process of monetary  
8 policy normalization outlined in its September 17, 2014 press  
9 release.<sup>13</sup> While the Federal Reserve's action marks the onset  
10 of the normalization process, this first move does not result  
11 in a fundamental alteration of its highly accommodative  
12 monetary policy. Nor does it remove uncertainty over the  
13 trajectory of further interest rate increases or the  
14 overhanging implications of the Federal Reserve's enormous  
15 holdings of long-term securities.

16           The Federal Reserve continues to exert considerable  
17 influence over capital market conditions through its massive  
18 holdings of Treasuries and mortgage-backed securities. Prior  
19 to the initiation of the stimulus program in 2009, the  
20 Federal Reserve's holdings of U.S. Treasury bonds and notes  
21 amounted to approximately \$400 - \$500 billion. With the

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<sup>13</sup> Press Release, Fed. Reserve Sys., Policy Normalization Principles and Plans, (Sept. 17, 2014), <http://www.federalreserve.gov/newsevents/press/monetary/20140917c.htm>.

1 implementation of its asset purchase program, balances of  
2 Treasury securities and mortgage backed instruments climbed  
3 steadily, and their effect on capital market conditions  
4 became more pronounced. Table 2 below charts the course of  
5 the Federal Reserve's asset purchase program:

6 **TABLE 2**  
7 **FEDERAL RESERVE BALANCES OF**  
8 **TREASURY BONDS AND MORTGAGE-BACKED SECURITIES**  
9 **(BILLION \$)**

2008	\$ 410
2009	\$ 1,618
2010	\$ 1,939
2011	\$ 2,423
2012	\$ 2,512
2013	\$ 3,597
2014	\$ 4,097
2015	\$ 4,100

10  
11 Far from representing a return to normal, the Federal  
12 Reserve's holdings of Treasury bonds and mortgage-backed  
13 securities now amount to more than \$4 trillion,<sup>14</sup> which is an  
14 all-time high. The Federal Reserve has announced its  
15 intention to maintain these balances by reinvesting principal  
16 payments from these securities "until normalization of the  
17 level of the federal funds rate is well under way."<sup>15</sup>

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<sup>14</sup> Federal Reserve Statistical Release, "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks," H.4.1.

<sup>15</sup> Federal Reserve Press Release (Mar. 16, 2016), <http://www.federalreserve.gov/monetarypolicy/files/monetary20160316a1.pdf>.

1           Of course, the corollary to these observations is that  
2 changes to this policy of reinvestment would further reduce  
3 stimulus measures and could place significant upward pressure  
4 on bond yields, especially considering the unprecedented  
5 magnitude of the Federal Reserve's holdings of Treasury bonds  
6 and mortgage-backed securities. As a *Financial Analysts*  
7 *Journal* article noted:

8           Because no precedent exists for the massive  
9 monetary easing that has been practiced over the  
10 past five years in the United States and Europe,  
11 the uncertainty surrounding the outcome of central  
12 bank policy is so vast. . . . Total assets on the  
13 balance sheets of most developed nations' central  
14 banks have grown massively since 2008, and the  
15 timing of when the banks will unwind those  
16 positions is uncertain.<sup>16</sup>

17           With expectations for higher interest rates, concerns  
18 about China's economy and fears of a global economic  
19 slowdown, dramatic decreases in oil prices, ongoing concerns  
20 over political stalemate in Washington, and political and  
21 economic unrest in the Middle East and Europe, the potential  
22 for significant volatility and higher capital costs is  
23 clearly evident to investors.

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<sup>16</sup> Poole, William, "Prospects for and Ramifications of the Great Central Banking Unwind," *Financial Analysts Journal* (November/December 2013).

1 Q. Can you provide an example of how this uncertainty  
2 has negatively impacted the credit markets for utilities like  
3 Avista?

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

7 **TABLE 3**  
8 **INTEREST RATE SPREADS**

<u>Month</u>	<u>Baa Utility</u>	<u>30-Year Treasury</u>	<u>Yield Spread</u>
Jan-15	4.39%	2.46%	1.93%
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	4.89%	2.96%	1.93%
Jun-15	5.13%	3.11%	2.02%
Jul-15	5.22%	3.07%	2.15%
Aug-15	5.23%	2.86%	2.37%
Sep-15	5.42%	2.95%	2.47%
Oct-15	5.47%	2.89%	2.58%
Nov-15	5.57%	3.02%	2.55%
Dec-15	5.55%	2.97%	2.58%
Jan-16	5.49%	2.86%	2.63%
Feb-16	5.28%	2.62%	2.66%
Mar-16	5.41%	2.84%	2.57%
<b>Change</b>	<b>1.02%</b>	<b>0.38%</b>	<b>0.64%</b>

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

10 As seen above, average Baa utility bond yields have  
11 increased by 102 basis points from January 2015 to March  
12 2016. Only a small portion of this increase (38 basis  
13 points) can be tied to the increase in "risk-free" Treasury  
14 bond rates. This is one measure of the increase in interest



1 rates across the markets in general. However, another  
2 phenomenon is occurring. As uncertainties facing capital  
3 markets increase, investors are requiring more compensation  
4 to assume greater risk. In January 2015, triple-B rated  
5 utilities were required to pay investors 193 basis points  
6 over the cost of Treasury bonds to entice them to purchase  
7 their debt issues. In March 2016, that additional cost was  
8 257 basis points. The difference (64 basis points), is the  
9 additional "cost" investors are now requiring to assume  
10 additional risk. For utilities like Avista, uncertainties  
11 across the globe and across capital markets are directly  
12 leading to higher capital costs.

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

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

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

1 the extent to which economic anomalies may have  
2 affected the reliability of DCF analyses.<sup>17</sup>

3 This conclusion is supported by comparisons of current  
4 conditions to the historical record and independent  
5 forecasts. As demonstrated above, recognized economic  
6 forecasting services project that long-term capital costs  
7 will increase from present levels. FERC ultimately  
8 determined that due to unrepresentative capital market  
9 conditions, an upward adjustment to the 9.39 percent midpoint  
10 of its DCF range was required in order to meet the regulatory  
11 standards established by *Hope* and *Bluefield*. Based on its  
12 examination of alternatives to the DCF approach, FERC  
13 authorized an ROE from the upper end of its DCF range, or  
14 10.57 percent.<sup>18</sup>

15 Given investors' expectations for rising interest rates  
16 and capital costs, the Commission should consider near-term  
17 forecasts for higher public utility bond yields in assessing  
18 the reasonableness of individual cost of equity estimates and  
19 in evaluating a fair ROE for Avista from within the range of  
20 reasonableness. As discussed in Exhibit No. 3, Schedule 2,  
21 this result is supported by economic studies that show that

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<sup>17</sup> Opinion No. 531, 147 FERC ¶ 61,234 at P 41 (2014).

<sup>18</sup> *Id.* at P 9.

1 equity risk premiums are higher when interest rates are at  
2 very low levels.

3 **Q Do ongoing economic and capital market**  
4 **uncertainties also influence the appropriate capital**  
5 **structure for Avista?**

6 A Yes. Financial flexibility plays a crucial role in  
7 ensuring the wherewithal to meet funding needs, and utilities  
8 with higher financial leverage may be foreclosed from  
9 additional borrowing, especially during times of stress. As  
10 a result, the Company's capital structure must maintain  
11 adequate equity to preserve the flexibility necessary to  
12 maintain continuous access to capital even during times of  
13 unfavorable market conditions.

14 **C. Support for Avista's Credit Standing**

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

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

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

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

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

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

14 A. The pressures of significant capital expenditure  
15 requirements, along with the need to refinance maturing debt,  
16 reinforce the importance of supporting continued improvement  
17 in Avista's credit standing. Investors understand from past  
18 experience in the utility industry that large capital needs  
19 can lead to significant deterioration in financial integrity  
20 that can constrain access to capital, especially during times  
21 of unfavorable capital market conditions. Considering the  
22 uncertain state of financial markets, competition with other  
23 investment alternatives, and investors' sensitivity to the  
24 potential for market volatility, greater credit strength is a

1 key ingredient in maintaining access to capital at reasonable  
2 cost. As Mr. Thies confirms in his testimony, ongoing  
3 regulatory support will be a key driver in continuing to  
4 build Avista's financial health.

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

8 A. Investors recognize that constructive regulation is  
9 a key ingredient in supporting utility credit ratings and  
10 financial integrity, particularly during times of adverse  
11 conditions. As Moody's noted, "the regulatory environment is  
12 the most important driver of our outlook because it sets the  
13 pace for cost recovery."<sup>19</sup> With respect to Avista  
14 specifically, the major bond rating agencies have explicitly  
15 cited the potential that adverse regulatory rulings could  
16 compromise the Company's credit standing. S&P observed that  
17 the stable outlook on Avista Corp. is due in part to their  
18 expectation that the company "will continue to effectively  
19 manage regulatory risks," and concluded that "greater  
20 borrowing or increased rate lag, a large deferral, or adverse

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<sup>19</sup> Moody's Investors Service, "Regulation Will Keep Cash Flow Stable As Major Tax Break Ends," *Industry Outlook* (Feb. 19, 2014).

1 regulatory decisions" could lead to a downgrade.<sup>20</sup> Similarly,  
2 Moody's concluded that "Avista's ratings could be negatively  
3 impacted if the level of regulatory support wanes."<sup>21</sup>  
4 Continuing support for Avista's financial integrity is  
5 imperative to ensure that the Company has the capability to  
6 maintain a strong investment grade rating while confronting  
7 large capital expenditures and other potential challenges.<sup>22</sup>

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

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

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<sup>20</sup> Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (May 19, 2015).

<sup>21</sup> Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 11, 2015).

<sup>22</sup> 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.

1 **D. Capital Structure**

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

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

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

18 A. Avista's capital structure is presented in the  
19 testimony of Mr. Thies. As summarized in his testimony, the  
20 proposed common equity ratio used to compute Avista's overall  
21 rate of return is 50.0 percent in this filing.

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

3           A.    As shown on Exhibit No. 3, Schedule 4, for the 16  
4 firms in the Utility Group, common equity ratios at December  
5 31, 2015 ranged between 30.3 percent and 54.8 percent. After  
6 excluding one low-end outlier, the average common equity  
7 ratio was 49.9 percent.

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

10          A.    As shown on Exhibit No. 3, Schedule 4, Value Line  
11 expects the individual common equity ratios for the proxy  
12 group of utilities to range from 34.5 percent to 57.5  
13 percent. After again eliminating a single low-end outlier,  
14 the average equity ratio corresponding to Value Line's three-  
15 to-five year forecast horizon is 50.8%.

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

18          A.    The 50.0 percent common equity ratio requested by  
19 Avista is consistent with the range of equity ratios  
20 maintained by the firms in the Utility Group and is in-line  
21 with the 48.7 percent and 49.8 percent average equity ratios  
22 at year-end 2015 and Value Line's near-term expectations,  
23 respectively.



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

4           A.    As discussed earlier, utilities are facing rising  
5 costs, the need to finance significant capital investment  
6 plans, uncertainties over accommodating economic and  
7 financial market uncertainties, and ongoing regulatory risks.  
8 Coupled with the potential for turmoil in capital markets,  
9 these considerations warrant a stronger balance sheet to deal  
10 with an increasingly uncertain environment.    The common  
11 equity ratio proposed by Avista is consistent with the need  
12 to maintain the continuous access to capital under reasonable  
13 terms that is required to fund operations and necessary  
14 system investment, including times of adverse capital market  
15 conditions.    S&P noted that, "we generally consider a debt to  
16 capital level of 50% or greater to be aggressive or highly  
17 leveraged for utilities."<sup>23</sup>

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

20           A.    Depending on their specific attributes, contractual  
21 agreements or other obligations that require the utility to

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<sup>23</sup> Standard & Poor's Corporation, "Ratings Roundup: U.S. Electric Utility Sector Maintained Strong Credit Quality In A Gloomy 2009," *RatingsDirect* (Jan. 26, 2010).

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

15 These commitments have been repeatedly cited by major  
16 bond rating agencies in connection with assessments of  
17 utility financial risks.<sup>24</sup> The capital structure ratios  
18 presented earlier do not include imputed debt associated with  
19 power purchase agreements or the impact of other off-balance  
20 sheet obligations.

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<sup>24</sup> Standard & Poor's Corporation, "Utilities: Key Credit Factors For The Regulated Utilities Industry," *RatingsDirect* (Nov. 19, 2013).

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

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

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

1 **III. CAPITAL MARKET ESTIMATES**

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

3 A. This section presents capital market estimates of  
4 the cost of equity. The details of my quantitative analyses  
5 are contained in Exhibit No. 3, Schedule 2, with the results  
6 being summarized below.

7 **A. Quantitative Analyses**

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

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

1           **Q. Are you aware that the IPUC has traditionally**  
2 **relied primarily on the DCF and comparable earnings methods?**

3           A. Yes, although the Commission has also evidenced a  
4 willingness to weigh alternatives in evaluating an allowed  
5 ROE. For example, while noting that it had not focused on  
6 the CAPM for determining the cost of equity, the IPUC  
7 recognized in Case No. IPC-E-03-13, Order No. 29505 that  
8 "methods to evaluate a common equity rate of return are  
9 imperfect predictors" and emphasized "that by evaluating all  
10 the methods presented in this case and using each as a check  
11 on the other," the Commission had avoided the pitfalls  
12 associated with reliance on a single method.<sup>25</sup>

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

15           A. In estimating the cost of equity, the DCF model is  
16 typically applied to publicly traded firms engaged in similar  
17 business activities or with comparable investment risks. As  
18 described in detail in Exhibit No. 3, Schedule 2, I applied  
19 the DCF model to a utility proxy group composed of those  
20 dividend-paying companies included by Value Line in its  
21 Electric Utilities Industry groups with:

- 22           1. S&P corporate credit ratings of BBB-, BBB, or BBB+;
- 

<sup>25</sup>Case No. IPC-E-03-13, Order No. 29505 at 38 (2004) (emphasis added).

- 1 2. Moody's issuer ratings of Baa2, Baa1, or A3;
- 2 3. Value Line Safety Rank of 2 or 3;
- 3 4. No involvement in a major merger or acquisition;
- 4 and,
- 5 5. Currently paying common dividends with no recent
- 6 dividend cuts.

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

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

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

13 **TABLE 4**  
14 **COMPARISON OF RISK INDICATORS**

	<u>Credit Rating</u>		<u>Value Line</u>		
	<u>S&amp;P</u>	<u>Moody's</u>	<u>Safety Financial</u>		<u>Beta</u>
			<u>Rank</u>	<u>Strength</u>	
Utility Group	BBB	Baa1	2	B++	0.76
Avista	BBB	Baa1	2	A	0.75

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

19 A. Yes. Considered together, a comparison of these  
20 objective measures, which consider a broad spectrum of risks,  
21 including financial and business position, and exposure to

1 firm-specific factors, indicates that investors would likely  
2 conclude that the overall investment risks for Avista are  
3 generally comparable to those of the firms in the Utility  
4 Group.

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

7 A. My application of the DCF model, which is discussed  
8 in greater detail in Exhibit No. 3, Schedule 2, considered  
9 three alternative measures of expected earnings growth, as  
10 well as the sustainable growth rate based on the relationship  
11 between expected retained earnings and earned rates of return  
12 ("br+sv"). As shown on page 3 of Exhibit No. 3, Schedule 5  
13 and summarized below in Table 5, after eliminating illogical  
14 values,<sup>26</sup> application of the constant growth DCF model  
15 resulted in the following cost of equity estimates:

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<sup>26</sup> I provide a detailed explanation of my DCF analysis, including the evaluation of individual estimates, in Exhibit No. 3, Schedule 2.

**TABLE 5**  
**DCF RESULTS - UTILITY GROUP**

<u>Growth Rate</u>	<u>Cost of Equity</u>	
	<u>Average</u>	<u>Midpoint</u>
Value Line	9.1%	10.4%
IBES	9.4%	9.5%
Zacks	9.1%	9.3%
br + sv	8.3%	9.1%

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

A. Like the DCF model, the CAPM 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 CAPM 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 CAPM 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 CAPM 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 CAPM.

Empirical research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size. The need for an adjustment to



1 account for relative market capitalization arises because  
2 differences in investors' required rates of return that are  
3 related to firm size are not fully captured by beta.  
4 Accordingly, my CAPM analyses incorporated an adjustment to  
5 recognize the impact of size distinctions, as developed by  
6 Morningstar.

7 **Q. What cost of equity was indicated by the CAPM**  
8 **approach?**

9 A. As shown on page 1 of Exhibit No. 3, Schedule 7,  
10 after incorporating the size adjustment, my forward-looking  
11 application of the CAPM model indicated an ROE of 9.7 percent  
12 for the Utility Group.

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

15 A. Yes. As discussed earlier, there is widespread  
16 consensus that interest rates will increase materially as the  
17 economy continues to strengthen. Accordingly, in addition to  
18 the use of current bond yields, I also applied the CAPM based  
19 on the forecasted long-term Treasury bond yields developed  
20 based on projections published by Value Line, IHS Global  
21 Insight and Blue Chip. As shown on page 2 of Exhibit No. 3,  
22 Schedule 7, incorporating a forecasted Treasury bond yield  
23 for 2016-2020 implied a cost of equity of approximately 10.0

1 percent for the Utility Group after adjusting for the impact  
2 of relative size.

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

5 A. My applications of the ECAPM were based on the same  
6 forward-looking market rate of return, risk-free rates, and  
7 beta values discussed above in connection with the CAPM. As  
8 shown on page 1 of Exhibit No. 3, Schedule 8, applying the  
9 forward-looking ECAPM approach to the firms in the Utility  
10 Group results in an average cost of equity estimate of 10.1  
11 percent after incorporating the size adjustment corresponding  
12 to the market capitalization of the individual utilities.

13 As shown on page 2 of Exhibit No. 3, Schedule 8,  
14 incorporating a forecasted Treasury bond yield for 2016-2020  
15 implied an average cost of equity of approximately 10.4  
16 percent after adjusting for the impact of relative size.

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

18 A. I based my estimates of equity risk premiums for  
19 electric utilities on surveys of previously authorized rates  
20 of return on common equity, which are frequently referenced  
21 as the basis for estimating equity risk premiums. My  
22 application of the risk premium method also considered the  
23 inverse relationship between equity risk premiums and

1 interest rates, which suggests that when interest rate levels  
2 are relatively high, equity risk premiums narrow, and when  
3 interest rates are relatively low, equity risk premiums  
4 widen.

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

7 A. As shown on page 1 of Exhibit No. 3, Schedule 9,  
8 adding an adjusted risk premium of 5.29 percent to the  
9 average yield on triple-B utility bonds for March 2016 of  
10 5.41 percent resulted in an implied cost of equity of  
11 approximately 10.7 percent. As shown on page 2 of Exhibit  
12 No. 3, Schedule 9, incorporating a forecasted yield for 2016-  
13 2020 and adjusting for changes in interest rates since the  
14 study period implied a cost of equity of approximately 11.7  
15 percent.

16 **Q. Please summarize the results of the expected**  
17 **earnings approach.**

18 A. Reference to rates of return available from  
19 alternative investments of comparable risk can provide an  
20 important benchmark in assessing the return necessary to  
21 assure confidence in the financial integrity of a firm and  
22 its ability to attract capital. This expected earnings  
23 approach is consistent with the economic underpinnings for a

1 fair rate of return established by the U.S. Supreme Court.  
2 Moreover, it avoids the complexities and limitations of  
3 capital market methods and instead focuses on the returns  
4 earned on book equity, which are readily available to  
5 investors.

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

8 A. Value Line's projections imply an average rate of  
9 return on common equity for the electric utility industry of  
10 10.8 percent over its 2019-2021 forecast horizon.<sup>27</sup> As shown  
11 on Exhibit No. 3, Schedule 10, Value Line's projections for  
12 the Utility Group suggest an average ROE of approximately  
13 10.1 percent, with a midpoint value of 10.8 percent.

14 **B. Flotation Costs**

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

17 A. The common equity used to finance the investment in  
18 utility assets is provided from either the sale of stock in  
19 the capital markets or from retained earnings not paid out as  
20 dividends. When equity is raised through the sale of common  
21 stock, there are costs associated with "floating" the new

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<sup>27</sup> The Value Line Investment Survey (Feb. 19, Mar. 18, & Apr. 29, 2016). Value Line reports return on year-end equity so the equivalent return on average equity would be higher.

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

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

10 A. No. While debt flotation costs are recorded on the  
11 books of the utility, amortized over the life of the issue,  
12 and thus increase the effective cost of debt capital, there  
13 is no similar accounting treatment to ensure that equity  
14 flotation costs are recorded and ultimately recognized. No  
15 rate of return is authorized on flotation costs necessarily  
16 incurred to obtain a portion of the equity capital used to  
17 finance plant. In other words, equity flotation costs are not  
18 included in a utility's rate base because neither that portion  
19 of the gross proceeds from the sale of common stock used to  
20 pay flotation costs is available to invest in plant and  
21 equipment, nor are flotation costs capitalized as an  
22 intangible asset. Unless some provision is made to recognize  
23 these issuance costs, a utility's revenue requirements will  
24 not fully reflect all of the costs incurred for the use of

1 investors' funds. Because there is no accounting convention  
2 to accumulate the flotation costs associated with equity  
3 issues, they must be accounted for indirectly, with an upward  
4 adjustment to the cost of equity being the most appropriate  
5 mechanism.

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

8 A. Yes. First, an adjustment for flotation costs  
9 associated with past equity issues is appropriate, even when  
10 the utility is not contemplating any new sales of common  
11 stock. The need for a flotation cost adjustment to  
12 compensate for past equity issues has been recognized in the  
13 financial literature. In a *Public Utilities Fortnightly*  
14 article, for example, Brigham, Aberwald, and Gapenski  
15 demonstrated that even if no further stock issues are  
16 contemplated, a flotation cost adjustment in all future years  
17 is required to keep shareholders whole, and that the  
18 flotation cost adjustment must consider total equity,  
19 including retained earnings.<sup>28</sup> Similarly, *New Regulatory*  
20 *Finance* contains the following discussion:

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<sup>28</sup> Brigham, E.F., Aberwald, D.A., and Gapenski, L.C., "Common Equity Flotation Costs and Rate Making," *Public Utilities Fortnightly*, May, 2, 1985.

1 Another controversy is whether the flotation cost  
2 allowance should still be applied when the utility  
3 is not contemplating an imminent common stock  
4 issue. Some argue that flotation costs are real  
5 and should be recognized in calculating the fair  
6 rate of return on equity, but only at the time when  
7 the expenses are incurred. In other words, the  
8 flotation cost allowance should not continue  
9 indefinitely, but should be made in the year in  
10 which the sale of securities occurs, with no need  
11 for continuing compensation in future years. This  
12 argument implies that the company has already been  
13 compensated for these costs and/or the initial  
14 contributed capital was obtained freely, devoid of  
15 any flotation costs, which is an unlikely  
16 assumption, and certainly not applicable to most  
17 utilities. . . . The flotation cost adjustment  
18 cannot be strictly forward-looking unless all past  
19 flotation costs associated with past issues have  
20 been recovered.<sup>29</sup>

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

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

29 The flotation cost allowance requires an estimated  
30 adjustment to the return on equity of approximately

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<sup>29</sup> Morin, Roger A., "New Regulatory Finance," *Public Utilities Reports, Inc.* (2006) at 335.

1 5% to 10%, depending on the size and risk of the  
2 issue.<sup>30</sup>

3 Alternatively, a study of data from Morgan Stanley  
4 regarding issuance costs associated with utility common stock  
5 issuances suggests an average flotation cost percentage of  
6 3.6 percent.<sup>31</sup>

7 Issuance costs are a legitimate consideration in setting  
8 the ROE for a utility, and applying these expense percentages  
9 to the average dividend yield for the Utility Group of 3.3  
10 percent implies a flotation cost adjustment on the order of  
11 12 basis points.<sup>32</sup>

12 **Q. Has the IPUC Staff previously considered flotation**  
13 **costs in estimating a fair ROE?**

14 A. Yes. For example, in Case No. IPC-E-08-10, IPUC  
15 Staff witness Terri Carlock noted that she had adjusted her  
16 DCF analysis to incorporate an allowance for flotation  
17 costs.<sup>33</sup>

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<sup>30</sup> Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.*  
at 323 (2006).

<sup>31</sup> 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.

<sup>32</sup> Calculated as the product of the 3.3 percent average dividend yield and  
a flotation cost percentage of 3.6 percent.  $3.3\% \times 3.6\% = 0.12\%$

<sup>33</sup> Case No. IPC-E-08-10, *Direct Testimony of Terri Carlock* at 12-13 (Oct.  
24, 2008).





1 **A. Non-Utility DCF Model**

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

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

18 **Q. Do utilities compete with non-regulated firms for**  
19 **capital?**

20 A. Yes. The cost of capital is an opportunity cost  
21 based on the returns that investors could realize by putting  
22 their money in other alternatives. Clearly, the total  
23 capital invested in utility stocks is only the tip of the  
24 iceberg of total common stock investment, and there are a

1 plethora of other enterprises available to investors beyond  
2 those in the utility industry. Utilities must compete for  
3 capital, not just against firms in their own industry, but  
4 with other investment opportunities of comparable risk.  
5 Indeed, modern portfolio theory is built on the assumption  
6 that rational investors will hold a diverse portfolio of  
7 stocks, not just companies in a single industry.

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

10 A. Yes. Returns in the competitive sector of the  
11 economy form the very underpinning for utility ROEs because  
12 regulation purports to serve as a substitute for the actions  
13 of competitive markets. The Supreme Court has recognized  
14 that it is the degree of risk, not the nature of the  
15 business, which is relevant in evaluating an allowed ROE for  
16 a utility. The *Bluefield* case refers to "business  
17 undertakings attended with comparable risks and  
18 uncertainties."<sup>35</sup> It does not restrict consideration to other  
19 utilities. Similarly, the *Hope* case states:

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<sup>35</sup> *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S.  
679 (1923).

1 By that standard the return to the equity owner  
2 should be commensurate with returns on investments  
3 in other enterprises having corresponding risks.<sup>36</sup>

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

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

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

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

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

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<sup>36</sup> *Federal Power Comm'n v. Hope Natural Gas Co.* (320 U.S. 391, 1944).

**TABLE 6**  
**COMPARISON OF RISK INDICATORS**

	<u>Credit Rating</u>		<u>Value Line</u>		
	<u>S&amp;P</u>	<u>Moody's</u>	<u>Safety Financial</u>		<u>Beta</u>
			<u>Rank</u>	<u>Strength</u>	
Non-Utility Group	A-	A2	1	A+	0.68
Utility Group	BBB	Baa1	2	B++	0.76
Avista	BBB	Baa1	2	A	0.75

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. 3, Schedule 11, 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 7, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

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

	<u>Cost of Equity</u>	
<u>Growth Rate</u>	<u>Average Midpoint</u>	
Value Line	9.6%	10.1%
IBES	10.3%	10.7%
Zacks	10.5%	11.2%

3  
4 Considering that the investment risks of the Non-Utility  
5 Group are lower than those of the Utility Group and Avista,  
6 these results understate investors' required rate of return  
7 for the Company.

8 **B. Regulatory Mechanisms**

9 **Q. Did you consider the implications of regulatory**  
10 **mechanisms approved for Avista's electric utility operations?**

11 A. Yes. Adjustment mechanisms and cost trackers have  
12 been increasingly prevalent in the utility industry in recent  
13 years. Reflective of this trend, the companies in my Utility  
14 Group operate under a wide variety of cost adjustment  
15 mechanisms, which range from riders to recover bad debt  
16 expense and post-retirement employee benefit costs to revenue  
17 decoupling and adjustment clauses designed to address rising  
18 capital investment outside of a traditional rate case and  
19 increasing costs of environmental compliance measures.

1           Similarly, Moody's upgraded most regulated utilities in  
2           January 2014.<sup>37</sup>    Recognizing this industry trend, Moody's  
3           premised its assessment of Avista's risks on the expectation  
4           that "similar treatment will be afforded to Avista and that  
5           the company will have improved cost recovery mechanisms  
6           (e.g., decoupling)."<sup>38</sup>   In evaluating Avista's relative risks,  
7           I referenced the Company's current credit ratings, which  
8           reflect the investment community's evaluation of the impact  
9           attributable to the FCA.   In other words, the implications of  
10          the FCA and other regulatory mechanisms are already fully  
11          reflected in Avista's credit ratings, which are comparable to  
12          those of the proxy group used to estimate the cost of equity.  
13          Thus, while investors would consider the FCA to be supportive  
14          of the Company's financial integrity and credit ratings,  
15          regulatory mechanisms do not provide a basis to distinguish  
16          the risks of Avista from the utilities in my Utility Group.

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

18           A.    Yes.

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<sup>37</sup> Moody's Investors Service, "US utility sector upgrades driven by stable and transparent regulatory frameworks," *Sector Comment* (Feb. 3, 2014).

<sup>38</sup> Moody's Investors Service, "Avista Corp.," *Global Credit Research* (Mar. 28, 2014).