

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

OPENING TESTIMONY OF MICHAEL P. GORMAN

ON BEHALF OF

NORTHWEST INDUSTRIAL GAS USERS (“NWIGU”)

AND

THE CITIZENS’ UTILITY BOARD OF OREGON (“CUB”)

REDACTED

October 16, 2015

**CERTAIN INFORMATION CONTAINED
IN NWIGU-CUB/100 PAGES 68 AND 69 AND
EXHIBIT NWIGU/CUB/122
IS CONFIDENTIAL AND SUBJECT TO
PROTECTIVE ORDER NO. 15-141.
YOU MUST HAVE SIGNED APPENDIX B OF THE
PROTECTIVE ORDER IN DOCKET UG 288
TO RECEIVE THE CONFIDENTIAL VERSION
OF THIS EXHIBIT.**

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OPENING TESTIMONY OF MICHAEL P. GORMAN**

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1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017. I am employed by the firm of Brubaker & Associates, Inc.
4 (“BAI”), regulatory and economic consultants with corporate headquarters in
5 Chesterfield, Missouri. My qualifications are provided in Exhibit NWIGU-CUB/101.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

7 **A.** I am testifying on behalf of Northwest Industrial Gas Users (“NWIGU”) and the
8 Citizens’ Utility Board of Oregon (“CUB”). NWIGU members include diverse industrial
9 and commercial interests that purchase sales and transportation services from Avista
10 Corporation dba Avista Utilities (“Avista” or the “Company”). CUB represents Avista’s
11 residential customers.

12 **Q. WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?**

13 **A.** In my testimony I will respond to certain revenue requirement issues related to Avista’s
14 claimed revenue deficiency in this proceeding, including its rate of return. I will also
15 respond to Avista witness Adrien M. McKenzie.

16 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR**
17 **TESTIMONY?**

18 **A.** Yes. I am sponsoring Exhibits NWIGU-CUB/101 through NWIGU-CUB/119.

19 **I. SUMMARY**

20 **Q. WILL YOU PLEASE SUMMARIZE YOUR REVENUE REQUIREMENT**
21 **FINDINGS AS DISCUSSED IN YOUR TESTIMONY.**

22 **A.** Yes. Avista is requesting a revenue increase of \$8.56 million (16.03%). Based on the
23 review of the Company’s claimed revenue requirement, and adjustments I will propose

1 below, I recommend this claimed revenue deficiency be reduced to \$4.56 million
2 (8.55%). Each of my revenue requirement adjustments is summarized in Table 1 below.

TABLE 1	
<u>Revenue Requirement Adjustments</u>	
(Non-Gas)	
<u>Description</u>	<u>Amount</u>
	(\$ Millions)
Claimed Deficiency	\$8.56 (16.03%)
<u>Less Adjustments:</u>	
Return on Equity	\$1.03
Capital Structure	\$0.35
Prepaid Pension Asset	\$0.61
Bonus Depreciation	\$2.02
Pension Expense	\$0.34
Depreciation Expense	<u>\$0.28</u>
Total Adjustments	\$4.63
Adjusted Revenue Deficiency	\$3.93
<hr/>	
Source: Gorman workpapers.	

3 Each of these revenue requirement adjustments will be explained below.

4 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS**
5 **ON AVISTA’S RATE OF RETURN.**

6 **A.** I recommend the Public Utility Commission of Oregon (the “Commission”) award Avista
7 a return on common equity of 9.35%, which is the midpoint of my recommended range
8 of 8.9% to 9.8%. My recommended return on equity will fairly compensate Avista for its
9 current market cost of common equity, and it will mitigate the claimed revenue

1 deficiency in this proceeding by providing Avista fair compensation with the lowest cost
2 to customers.

3 I recommend adjustments to Avista's proposed ratemaking capital structure.
4 Avista proposes a capital structure composed of 50% debt and 50% equity. However, a
5 review of its actual regulatory capital structure removing its investments in non-regulated
6 activities shows that it has a common equity ratio supporting its investment in utility
7 plant and equipment of around 48% to 49%. I recommend using an actual utility capital
8 structure composed of 48.5% common equity and 51.5% debt be used to establish
9 Avista's overall rate of return. I will also show that this actual utility capital structure has
10 been regarded as an appropriate capital structure for Avista and supports its current
11 investment grade bond rating.

12 I do not take issue with Avista's estimated embedded cost of debt.

13 Based on my recommended return on equity and capital structure, I recommend
14 an overall rate of return of 7.38% as developed on my Exhibit NWIGU-CUB/102.

15 **Q. WHAT IS THE REVENUE IMPACT OF YOUR RETURN ON EQUITY**
16 **RECOMMENDATION AND CAPITAL STRUCTURE ADJUSTMENT?**

17 **A.** Reducing Avista's authorized return on equity from 9.9% down to 9.35% lowers its
18 claimed revenue deficiency by \$1.03 million. Further, adjusting Avista's capital structure
19 to be 48.5%/51.5% equity and debt, compared to Avista's 50%/50% equity and debt
20 proposed capital structure, lowers the claimed revenue deficiency at my proposed return
21 on equity of \$346,000. These are based on a gas rate base of \$217.8 million.

22 **Q. PLEASE DESCRIBE YOUR OTHER REVENUE REQUIREMENT**
23 **ADJUSTMENTS.**

24 **A.** My other revenue requirement adjustments are summarized as follows:

- 1 1. Avista has included a prepaid pension asset in its rate base. The Commission has
2 already found that it is not appropriate to include prepaid pension assets in utilities'
3 rate bases.^{1/} Removing this asset from rate base lowers Avista's claimed revenue
4 deficiency by approximately \$0.61 million.
- 5 2. Due to the anticipated extension of bonus depreciation for 2015 and 2016, both the
6 accumulated deferred federal income tax offset to rate base should be increased and
7 Oregon state income taxes should be reduced. Recognition of bonus depreciation for
8 2015 and 2016 reduces Avista's claimed revenue deficiency by approximately \$2.02
9 million.
- 10 3. Avista is proposing a change to the expected return on pension trust fund assets. I am
11 proposing to eliminate this change and increase the expected return on pension trust
12 fund assets. This change reduces the pension expense and lowers the claimed
13 revenue requirement by \$340,000.
- 14 4. Avista's original filing included depreciation expense that was, in part, based on
15 incorrect depreciation rates. Correcting the calculation of depreciation expense
16 reduces the revenue requirement by \$280,000 for the appropriate depreciation rates.

17 **II. RATE OF RETURN**

18 **Q. PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

19 **A.** I begin my estimate of a fair return on equity for Avista by reviewing the market's
20 assessment of the regulated utility industry investment risk, credit standing, and stock
21 price performance. I used this information to get a sense of the market's perception of
22 the risk characteristics of regulated utility investments in general, which is then used to
23 produce a refined estimate of the market's return requirement for assuming investment
24 risk similar to Avista's utility operations.

25 As described below, I find the credit rating outlook of the industry to be strong,
26 supportive of the industry's financial integrity and access to capital. Further, regulated
27 utilities' stocks have exhibited strong price performance over the last several years,
28 which is evidence of utility access to capital.

^{1/} Order 15-226 in Docket No. UM1633.

1 Based on this review of credit outlooks and stock price performance, I conclude
2 that the market continues to embrace the regulated utility industry as a safe-haven
3 investment, and views utility equity and debt investments as low-risk securities.

4 **II.A. Regulated Utility Industry Market Outlook**

5 **Q. PLEASE DESCRIBE REGULATED UTILITIES' CREDIT RATING OUTLOOK.**

6 **A.** Utilities' credit ratings have improved over the recent past and the credit outlook is
7 Stable. Further, credit analysts have observed that utilities currently have strong access
8 to capital at attractive pricing (i.e., low capital costs).

9 Standard & Poor's ("S&P") recently published a report titled "The Outlook For
10 U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust
11 Financial Performance." In that report, S&P noted the following:

12 **Capital Spending Will Grow**

13 Consistent with the trend over the past 10 years, we expect that utility
14 company capital spending will continue to grow (see related article "U.S.
15 Regulated Electric Utilities' Annual Capital Spending Is Poised To
16 Eclipse \$100 Billion," July 29, 2014). We project that capital spending
17 will reach an all-time high of about \$95 billion in 2014, reflecting growing
18 funding needs for environmental compliance projects and new
19 transmission investments. For 2015-2016, we expect capital spending
20 overall to slow somewhat, but transmission investments to continue to
21 grow to address reliability, accommodate new generation, and integrate
22 renewable energy projects into the grid. The slowdown in the next few
23 years is due to environmental compliance-related capital spending that
24 reflects the completion of [sic] the necessary projects for much of coal-
25 fired generation to meet the existing U.S. Environmental Protection
26 Agency's (EPA) Mercury and Air Toxics Standards (MATS). Beginning
27 in 2017, we expect the industry's generation and overall capital spending
28 needs to pick up significantly, consistently exceeding \$100 billion
29 annually. This hike reflects some utilities' decisions to proactively boost
30 lower carbon-intensive generation capital spending in order to meet the
31 EPA's recently announced proposed carbon pollution rules.

32 * * *

1 **INDUSTRY RATINGS OUTLOOK: STABLE**

2 Our outlook on the regulated utility sector, which encompasses electric,
3 natural gas, and water companies, is stable with a slightly positive bias,
4 with about 20% of companies in the sector having a positive outlook. The
5 positive bias is not industrywide, rather it is the result of certain issuers
6 undertaking actions that can benefit their credit profiles, a trend that has
7 been making its way through the industry over the past few years. We
8 have seen companies, when opportune, endeavor to reduce business risk
9 while maintaining or slightly enhancing their financial profiles. Overall,
10 our fundamental view of the sector is a stable one, supported by the
11 essential nature of the services provided, making the companies somewhat
12 insensitive to economic fluctuations; the rate-regulated nature of the
13 business, which lends a measure of stability and predictability to cash flow
14 generation; and the generally supportive posture of regulators toward cost
15 recovery of incremental investments facilitated by the ongoing low power
16 prices.^{2/}

17 Similarly, Fitch states:

18 **Stable Sector Outlook:** Fitch Ratings' stable outlook for the U.S.
19 Utilities, Power and Gas (UPG) sector reflects modest recovery in
20 electricity sales after three years of stagnant growth. The recently
21 observed positive momentum in industrial sales could sustain in line with
22 the broader economic recovery and potentially spill over to other sectors.
23 This is welcome news for electric utilities wrestling with structural
24 headwinds posed by energy efficiency and distributed generation, and
25 pressure on retail prices as costs are spread over declining units of sales.

26 * * *

27 **Divergence in Subsector Rating Outlook**

28 The outlook for electric and gas utilities and utility parent companies is
29 stable given the backdrop of gradual economic recovery, low inflation and
30 subdued interest rates, and stable commodity prices. Issuer Default
31 Ratings should remain on the cusp of 'BBB+' to 'A-', with more than
32 90% of debt issuances being rated in the 'A' category. Long-term debt
33 instrument ratings of Fitch's entire universe of regulated utilities carry
34 investment-grade ratings, a testament to the sound credit profile of the
35 industry. The outlook for gencos is negative, reflecting poor sector
36 fundamentals, including weak electricity demand and low power prices.
37 Affiliated gencos generally have investment-grade ratings and may be

^{2/} *Standard & Poor's RatingsDirect*: "Industry Report Card: The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance," December 16, 2014, at 4, emphasis added.

1 under greater rating pressure. Recent consolidation among independent
2 gencos has added scale and diversity, and is a credit positive.^{3/}

3 Moody's recent comments on the U.S. Utility Sector state as follows:

4 Our outlook for the US regulated utilities industry is stable. This
5 outlook reflects our expectation for the fundamental business
6 conditions in the industry over the next 12 to 18 months.

7 » **Regulatory support is the most important driver of our stable**
8 **outlook.** Our stable outlook for the US regulated utility industry is
9 based on our expectation that regulators will continue to help utilities
10 recover costs and maintain stable cash flow, such that the ratio of cash
11 flow from operations (CFO) to debt will remain close to 20%, on
12 average, for the industry.

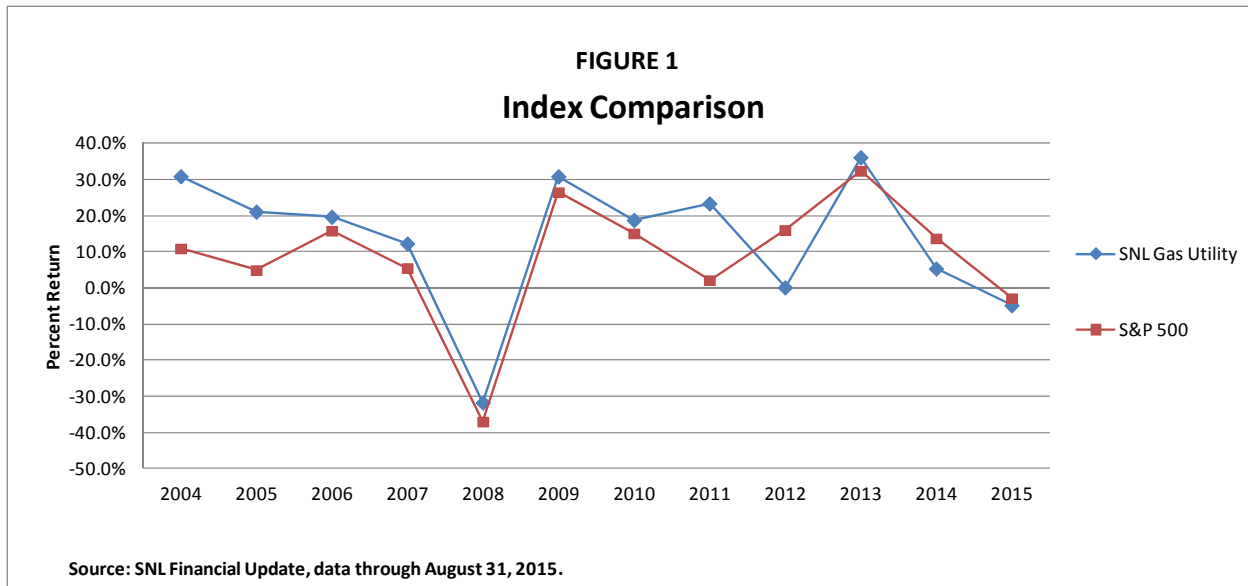
13 » **Capital spending will decline in 2015, which reduces borrowing**
14 **needs.** The credit profiles of large, integrated utilities that generate,
15 transmit and distribute power will benefit from a drop in capital
16 spending in 2015, because most of the heavy capital expenditures for
17 environmental compliance have been made. This will reduce the
18 industry's debt needs and stabilize financial metrics, at least for the
19 next two years.^{4/}

20 **Q. PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE**
21 **LAST SEVERAL YEARS.**

22 **A.** As shown in the graph below, the Edison Electric Institute ("EEI") has recorded utility
23 stock price performance compared to the market. The EEI data shows that its Utility
24 Index has outperformed the market in downturns and trailed the market during recovery.
25 This supports my conclusion that utility stock investments are regarded by market
26 participants as a moderate- to low-risk investment.

^{3/} *Fitch Ratings*: "2015 Outlook: U.S. Utilities, Power and Gas," December 16, 2014, at 1-2, emphasis added.

^{4/} *Moody's Investors Service*: "2015 Outlook – US Regulated Utilities: Regulatory Support Drives Our Stable Outlook," December 15, 2014, at 1, emphasis added.



1 **Q. WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS**
2 **ASSESSMENT OF UTILITY INDUSTRY CREDIT AND INVESTMENT RISK**
3 **OUTLOOKS?**

4 **A.** Credit rating agencies consider the regulated utility industry to be stable and believe
5 investors will continue to provide an abundance of capital to support utilities' large
6 capital programs at moderate capital costs. All of this supports the continued belief that
7 utility investments are generally regarded as safe-haven or low-risk investments, and the
8 market embraces low-risk investments, such as utility investments. The demand for low-
9 risk investments will provide funding for regulated utilities in general.

10 **II.B. Avista Investment Risk**

11 **Q. PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT**
12 **RISK OF AVISTA.**

13 **A.** The market's assessment of Avista's investment risk is described by credit rating
14 analysts' reports. Avista's current corporate and senior secured bond ratings from S&P
15 are BBB and A-, respectively. Avista's current corporate and senior secured bond ratings

1 from Moody's are Baa1 and A2, respectively.^{5/} Both rating agencies have a Stable
2 outlook for Avista.

3 Specifically, S&P states the following:

4 **Business Risk: Strong**

5 In our assessment, Avista's business risk profile is "strong" based
6 on what we consider the utility's "satisfactory" competitive
7 position, "very low" industry risk of the regulated utility industry,
8 and "very low" country risk of the U.S. where the company
9 operates. The company's competitive position incorporates its
10 vertically integrated electric and natural gas distribution utility
11 operations in Washington and Idaho, electric operations in Alaska,
12 and gas distribution in Oregon. Although the company operates in
13 four states, it has fewer than 400,000 electric and about 330,000
14 natural gas customers with no meaningful industrial concentration.
15 When needed, the utility requests through the regulatory process to
16 recover costs. Since the utility has hydroelectric power exposure,
17 recovery mechanisms are important to mitigate the need to
18 purchase power for customers when the hydro power is
19 unavailable. The company has some flexibility in implementing
20 incremental rate changes through its energy recovery mechanism
21 in Washington and the power cost adjustment in Idaho, but the
22 recovery of excess power costs in Washington is more restrictive
23 with minimum thresholds and deferral bands. Purchased gas
24 adjustments for gas distribution units in all three gas jurisdictions,
25 along with hedging, mitigate gas supply risk. We view these as
26 important in averting large cost adjustment requests and support
27 the business risk profile.

28 **Financial Risk: Significant**

29 We base our financial risk profile assessment of "significant" on
30 the medial volatility financial ratio benchmarks. Our assessment
31 takes into consideration the mostly steady cash flows from the
32 utility business. Our base case indicates that capital spending
33 along with dividend payments will lead to negative discretionary
34 cash flow over the next few years. External funding will be
35 needed to cover the deficit since internally generated cash flow is
36 insufficient. Our base-case scenario suggests mostly steady key
37 credit measures for the next several years, including FFO to debt
38 from about 14% to 16%. Our base case indicates that the
39 supplemental ratio of operating cash flow to debt is expected to

^{5/} Thies Direct, Exhibit/201.

1 range from about 17% to about 18.5%, bolstering the “significant”
2 financial risk profile assessment.^{6/}

3 Similarly, Moody’s states the following:

4 **SUMMARY RATING RATIONALE**

5 Avista’s Baa1 issuer rating reflects its low-risk business profile as
6 a vertically integrated electric utility in supportive regulatory
7 jurisdictions, which allows the company to produce fairly
8 predictable cash flow year-over year. The rating also considers
9 increasing capital expenditures focused on transmission and
10 distribution improvements, which are of a lower risk profile than
11 some regional peers of the same rating.

12 * * *

13 **DETAILED RATING CONSIDERATIONS**

14 **REGULATORY SUPPORT PROVIDES FUNDAMENTAL**
15 **RATING DRIVER**

16 The primary credit driver for Avista is the degree of regulatory
17 support and cost recovery allowed by its regulatory authorities.

18 * * *

19 In addition to the general rate approvals in Washington, Idaho and
20 Oregon, each commission allows for cost recovery mechanisms
21 that factor significantly into our credit assessment. The WUTC
22 provides for power supply costs to be included in base rates, while
23 differences between authorized expenses and actual expenses are
24 deferred and recovered annually through its Energy Recovery
25 Mechanism (ERM). Idaho also provides a similar mechanisms
26 [sic] via the Power Cost Adjustment (PCA) and all three
27 jurisdictions offer a Purchased Gas Adjustment (PGA) mechanism.

28 **STABLE CASH FLOW PRODUCTION OF UTILITY**
29 **OPERATIONS UNDERPINS FINANCIAL PROFILE**

30 We expect Avista to produce cash flow to debt metrics in the high
31 teens on an ongoing basis, underpinned by ongoing rate relief
32 provided by its regulatory authorities. Avista’s utilities division,
33 alone, produces enough cash flow to cover the debt and interest
34 payments of Avista Corp. in a range that would be appropriate for

^{6/} *Standard & Poor’s RatingsDirect*: “Summary: Avista Corp.,” May 19, 2015, at 3 and 4, emphasis added.

1 a Baa1 vertically integrated utility with constructive regulatory
2 relationships and predictable cost recovery mechanisms. This is
3 important as we view Ecova, the company's primary unregulated
4 subsidiary, as a non-core investment and of a higher risk profile
5 than the utility company.^{7/}

6 **II.C. Avista's Proposed Capital Structure**

7 **Q. WHAT IS AVISTA'S PROPOSED CAPITAL STRUCTURE?**

8 **A.** Avista's proposed capital structure is shown in Table 2 below:

<u>Description</u>	<u>Weight</u>
Long-Term Debt	50.0%
Common Equity	<u>50.0%</u>
Total Regulatory Capital Structure	100.0%

Source: Direct Testimony of Mark T. Thies at 14.

9 **Q. IS AVISTA'S PROPOSED CAPITAL STRUCTURE REASONABLE?**

10 **A.** No. I believe Avista's proposed capital structure is unreasonable for the following
11 reasons:

- 12 1. The proposed 50% common equity ratio overstates the percentage of common equity
13 used to fund investment in utility plant and equipment.
- 14 2. Previous ratemaking capital structures have been closer to 48.5% common equity and
15 51.5% debt.^{8/} These capital structures have been regarded as supportive regulatory
16 treatment by credit rating agencies; therefore an increase in the common equity ratio
17 as proposed by Avista is imbalanced and should be rejected.

^{7/} *Moody's Investors Service*: "Credit Opinion: Avista Corp.," March 28, 2014, provided by Avista in Mr. McKenzie's workpapers, AMM-Pages 107 and 108 of 459, emphasis added.

^{8/} WUTC Docket Nos. UE-150204/150205, Exhibit No. ___ T (JT-1T) at 6 – Partial Settlement.

1 3. Further, as developed below, removing the common equity supporting non-regulated
2 investments, adjusts Avista's most recent actual regulatory capital structure as
3 reported on its FERC Form 1 to a common equity ratio of approximately 48.5% and
4 debt ratio of 51.5%. Similarly, as also developed below, Avista's parent company's
5 capital structure would be approximately 48.5% equity and 51.5% debt when the
6 capital supporting non-regulated investments and goodwill asset are removed from the
7 consolidated company capital structure.

8 **Q. PLEASE EXPLAIN WHY AVISTA'S PROPOSED CAPITAL STRUCTURE**
9 **OVERSTATES THE COMMON EQUITY ACTUALLY USED TO INVEST IN**
10 **UTILITY PLANT AND EQUIPMENT.**

11 **A.** As shown on page 2 of my attached Exhibit NWIGU-CUB/102, based on its FERC Form
12 1 data, Avista's common equity and debt ratio used to support its investment in utility
13 plant and equipment has consistently been around approximately 48.0% to 49.0% over
14 the last several years. I developed this capital structure by starting with Avista's total
15 capital structure recorded in its FERC Form 1, and removing investments funded by
16 common equity that are not related to utility plant and equipment. These utility
17 investments include: (1) non-utility property net, (2) investments in subsidiaries, and (3)
18 other investments. After these non-utility plant and equipment investments are removed
19 from the utility ratemaking capital structure, Avista's utility capital structure is composed
20 of roughly 51.5% debt and 48.5% common equity.

21 **Q. DOES AVISTA PROVIDE A DESCRIPTION OF THE TYPES OF**
22 **INVESTMENTS INCLUDED IN NON-UTILITY PROPERTY, AND**
23 **INVESTMENTS IN SUBSIDIARIES?**

24 **A.** Yes. Avista Capital, a wholly-owned subsidiary of Avista Corporation is the parent
25 company of Avista's non-utility businesses, which include sheet metal fabrication,
26 venture fund investments, real estate investments and other non-regulated businesses.^{9/}

27 It is not appropriate to assume that these non-regulated investments are supported
28 by utility debt. Utility debt is issued on the low-risk nature of utility operations based on

^{9/} December 31, 2014 FERC Form 1 at pages 123.6 and 103-103.2.

1 stable and predictable cash flows produced by the utility. As such, it would not be
2 appropriate to use utility debt to subsidize Avista's investments in non-utility companies.

3 **Q. YOU ALSO MENTIONED THAT AVISTA'S PUBLICLY TRADED CAPITAL**
4 **STRUCTURE COMMON EQUITY RATIO WOULD BE LESS THAN 48.5% IF**
5 **NON-REGULATED INVESTMENTS AND GOODWILL ARE REMOVED.**
6 **PLEASE EXPLAIN.**

7 **A.** This is illustrated on page 3 on my Exhibit NWIGU-CUB/102. As shown on that exhibit,
8 I start with Avista's capital structure as stated in its Securities and Exchange Commission
9 10-K. I reduced the amount of common equity supporting the goodwill asset recorded on
10 the parent's balance sheet. After this adjustment, the publicly traded capital structure of
11 Avista Corporation contains approximately 48.5% common equity and 51.5% debt.

12 **Q. HAS AVISTA PREVIOUSLY SET ITS RATEMAKING CAPITAL STRUCTURE**
13 **AT THIS WEIGHT?**

14 **A.** Yes. Its most recent rate case, the parties reached a partial settlement in the state of
15 Washington that included a capital structure composed of 48.5% equity and 51.5%
16 debt.^{10/}

17 **Q. DO YOU BELIEVE THAT AVISTA'S ACTUAL CAPITAL STRUCTURE, AND**
18 **THE REGULATORY TREATMENT SETTING ITS RATES USING A CAPITAL**
19 **STRUCTURE COMPOSED OF ROUGHLY 48% COMMON EQUITY HAVE**
20 **SUPPORTED ITS INVESTMENT GRADE BOND RATING?**

21 **A.** Yes. As noted above, Avista's current investment grade bond rating from both Moody's
22 and S&P is "Stable." Indeed, as noted above, S&P regards Avista's cash flow to be
23 stable largely due to its regulated utility operations, and Moody's specifically finds that
24 Avista has received supportive regulatory treatment in its various jurisdictions.

^{10/} *Id.*

1 **Q. PLEASE EXPLAIN WHY YOU BELIEVE AVISTA WITNESS MR. THIES'S**
2 **PROPOSED CAPITAL STRUCTURE CONTAINS MORE COMMON EQUITY**
3 **THAN THAT USED TO SUPPORT AVISTA'S INVESTMENTS IN UTILITY**
4 **PLANT AND EQUIPMENT.**

5 **A.** Mr. Thies's capital structure is based on total Avista Corporation. However, total Avista
6 Corporation has significant investments in a goodwill asset, and below-the-line
7 investments in non-regulated assets. The common equity supporting Avista's goodwill
8 asset, and other non-regulated assets should be removed from a regulatory capital
9 structure that should reflect only capital supporting Avista's utility operations. I propose
10 to remove Avista common equity supporting a goodwill asset and non-regulated assets
11 from its regulated capital structure. Goodwill is an accounting "paper" asset that is
12 created due to an acquisition account from Avista acquisition actions from the past. A
13 goodwill asset is not related to providing utility services. Rather, goodwill simply reflects
14 an accounting entry when Avista Corporation acquired other assets at prices above their
15 fair market or book value. Further, a goodwill asset can only be supported by equity
16 capital, because it is an accounting asset that has no economic value. Specifically, a
17 goodwill asset does not produce cash flows, and therefore cannot be supported by debt
18 service payments. Therefore, Avista Corporation's common equity supporting the
19 goodwill asset should be removed in establishing the capital structure supporting utility
20 operations.

21 If the common equity supporting Avista's investments in non-regulated assets and
22 goodwill are removed from Mr. Thies's proposed capital structure, its regulated capital
23 structure contains a 45.6% common equity ratio. Avista's regulatory capital structure,
24 which removes the common equity supporting the goodwill and non-regulated assets, is
25 developed on my Exhibit NWIGU-CUB/103.

1 **Q. PLEASE EXPLAIN WHY YOU BELIEVE MR. THIES’S PROPOSED CAPITAL**
2 **STRUCTURE CONTAINS MORE EQUITY THAN NEEDED TO SUPPORT**
3 **AVISTA’S CURRENT BOND RATING.**

4 **A.** In the most recent S&P credit report for Avista Corporation, S&P rated Avista’s current
5 “BBB” investment bond rating as “Stable.”

6 S&P stated:

7 **Outlook: Stable**

8 The stable outlook on Avista Corp. reflects our expectation over
9 the next two years that the company will continue to effectively
10 manage regulatory risks, fund capital spending in a manner that
11 does not meaningfully increase leverage, preserve adequate
12 liquidity, and maintain comparable financial performance. Under
13 our base-case scenario we expect funds from operations (FFO) to
14 total debt to average about 16%.^{11/}

15 Most importantly, S&P bases its assessment on the Company’s most recent
16 financial position. S&P estimated Avista’s adjusted equity ratio over the last three years
17 to be approximately 46%, as reported on S&P’s Global Credit Portal. Hence, a capital
18 structure composed of approximately 48.5% (unadjusted) common equity has been
19 adequate to support Avista’s current bond rating with a “Stable” outlook.

20 I believe this is significant because it demonstrates the capital structure mix that is
21 adequate to support Avista’s access to capital at reasonable terms and prices, while
22 minimizing its cost to retail customers.

23 **Q. DO YOU BELIEVE THAT AVISTA’S ACTUAL CAPITAL STRUCTURE HAS**
24 **SUPPORTED ITS ACCESS TO CAPITAL AT REASONABLE PRICES AND**
25 **TERMS GIVEN ITS LARGE CAPITAL PROGRAM?**

26 **A.** Yes. Mr. Thies explains at pages 19-20 of his direct testimony that Avista has been able
27 to successfully issue new debt capital to refinance current maturities and fund capital
28 projects at very reasonable rates. In fact, he explains that Avista has issued \$315 million

^{11/} *Standard & Poor’s RatingsDirect*: “Summary: Avista Corp.,” May 19, 2015, at 3.

1 in long-term debt during the period 2011 to 2014 at a weighted average rate of 3.30%
2 with a weighted maturity of 23.6 years. During this time period, Over the same time
3 period, Avista Corporation received two corporate credit rating upgrades by Moody's and
4 one upgrade by S&P. Throughout this time period, both rating agencies had a stable or
5 positive outlook on Avista Corporation.

6 **Q. WHAT IS THE CAPITAL STRUCTURE YOU PROPOSE BASED ON YOUR**
7 **FORECASTED AVISTA DECEMBER 31, 2016 CAPITAL STRUCTURE?**

8 **A.** As shown below in Table 3, my capital structure contains less common equity and more
9 debt capital than Avista's proposed capital structure.

<u>Description</u>	<u>Weight</u>
Total Debt	51.5%
Common Equity	<u>48.5%</u>
Total Regulatory Capital Structure	100.0%

Source: Exhibit NWIGU-CUB/102.

10 My recommended capital structure is more in line with Avista's actual cost of
11 capital supporting its regulated utility operations, will support its current strong
12 investment grade bond rating, and will mitigate cost to customers.

13 **Q. PLEASE EXPLAIN WHY YOUR CAPITAL STRUCTURE WILL MITIGATE**
14 **COST TO CUSTOMERS WHILE PRESERVING AVISTA'S FINANCIAL**
15 **INTEGRITY AND ACCESS TO CAPITAL.**

16 **A.** Avista's proposed capital structure contained an excessive weight of common equity.
17 Developing an overall rate of return with a capital structure with too much common

1 equity will increase the rate of return and increase the income tax component of the
2 revenue requirement. Hence, overstating the common equity ratio will inflate the
3 revenue requirement because it includes too much common equity which is the most
4 expensive form of capital, and will also increase income tax expense. A more balanced
5 capital structure with a reasonable balance of common equity reduces the overall rate of
6 return and income tax expense while preserving Avista's financial integrity and access to
7 capital. Hence, it is a more reasonable and balanced capital structure.

8 **II.D. Embedded Cost of Debt**

9 **Q. WHAT IS THE EMBEDDED COST OF DEBT THAT THE COMPANY IS**
10 **PROPOSING IN THIS PROCEEDING?**

11 **A.** The Company is proposing an embedded debt cost of 5.53% for 2016. The embedded
12 debt cost is sponsored by Company witness Mark T. Thies.

13 **II.E. Return on Equity**

14 **Q. PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF**
15 **COMMON EQUITY."**

16 **A.** A utility's cost of common equity is the return investors require on an investment in the
17 utility. Investors expect to achieve their return requirement from receiving dividends and
18 stock price appreciation.

19 **Q. PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**
20 **REGULATED UTILITY'S COST OF COMMON EQUITY.**

21 **A.** In general, determining a fair cost of common equity for a regulated utility has been
22 framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works &
23 Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power
24 Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

1 These decisions identify the general standards to be considered in establishing the
2 cost of common equity for a public utility. Those general standards provide that the
3 authorized return should: (1) be sufficient to maintain financial integrity; (2) attract
4 capital under reasonable terms; and (3) be commensurate with returns investors could
5 earn by investing in other enterprises of comparable risk.

6 **Q. PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE**
7 **AVISTA’S COST OF COMMON EQUITY.**

8 **A.** I have used several models based on financial theory to estimate Avista’s cost of common
9 equity. These models are: (1) a constant growth Discounted Cash Flow (“DCF”) model
10 using consensus analysts’ growth rate projections; (2) a constant growth DCF using
11 sustainable growth rate estimates; (3) a multi-stage growth DCF model; (4) a Risk
12 Premium model; and (5) a Capital Asset Pricing Model (“CAPM”). I have applied these
13 models to two groups of publicly traded utilities that have investment risk similar to
14 Avista.

15 **II.F. Risk Proxy Group**

16 **Q. HOW DID YOU SELECT UTILITY PROXY GROUPS SIMILAR IN**
17 **INVESTMENT RISK TO AVISTA TO ESTIMATE ITS CURRENT MARKET**
18 **COST OF EQUITY?**

19 **A.** I relied on two proxy groups: (1) a gas utility proxy group; and (2) a combination utility
20 proxy group. I determined these proxy groups are comparable in investment risk to
21 Avista. My recommended two proxy groups are based on the same two proxy groups
22 used by Avista witness Mr. Adrien M. McKenzie to estimate Avista’s return on equity.
23 However, I removed AGL Resources and Black Hills Corp. due to their recent mergers
24 and acquisition activities.

1 **Q. PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUPS ARE**
2 **REASONABLY COMPARABLE IN INVESTMENT RISK TO AVISTA.**

3 **A.** The proxy groups are shown in Exhibit NWIGU-CUB/104. The gas proxy group has an
4 average corporate credit rating from S&P of A-, which is higher than S&P's corporate
5 credit rating for Avista of BBB. The combination proxy group has an average corporate
6 credit rating from S&P of BBB+, which is one notch higher than Avista's BBB rating
7 from S&P. Both the gas and combination proxy groups have an average corporate credit
8 rating from Moody's of Baa1, which are identical to Avista's corporate credit rating from
9 Moody's of Baa1. Based on this information, I believe my proxy groups are reasonably
10 comparable in investment risk to Avista.

11 The gas proxy group has an average common equity ratio of 46.0% (including
12 short-term debt) from SNL Financial ("SNL") and 52.4% (excluding short-term debt)
13 from *The Value Line Investment Survey* ("Value Line") in 2015. The combination proxy
14 group has an average common equity ratio of 45.5% (including short-term debt) from
15 SNL Financial ("SNL") and 48.3% (excluding short-term debt) from *Value Line* in 2015.
16 Avista's requested 50.0% common equity ratio is higher than that of the proxy groups.

17 Based on all of these risk factors, I conclude the proxy groups reasonably
18 approximate the investment risk of Avista.

19 **II.G. Discounted Cash Flow Model**

20 **Q. PLEASE DESCRIBE THE DCF MODEL.**

21 **A.** The DCF model posits that a stock price is valued by summing the present value of
22 expected future cash flows discounted at the investor's required rate of return or cost of
23 capital. This model is expressed mathematically as follows:

1
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad (\text{Equation 1})$$

2

3 P_0 = Current stock price
4 D = Dividends in periods 1 - ∞
5 K = Investor's required return

6 This model can be rearranged in order to estimate the discount rate or investor-
7 required return, "K." If it is reasonable to assume that earnings and dividends will grow
8 at a constant rate, then Equation 1 can be rearranged as follows:

9
$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

10 K = Investor's required return
11 D_1 = Dividend in first year
12 P_0 = Current stock price
13 G = Expected constant dividend growth rate

14 Equation 2 is referred to as the annual "constant growth" DCF model.

15 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF**
16 **MODEL.**

17 **A.** As shown in Equation 2 above, the DCF model requires a current stock price, expected
18 dividend, and expected growth rate in dividends.

19 **Q. WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT**
20 **GROWTH DCF MODEL?**

21 **A.** I relied on the average of the weekly high and low stock prices of the utilities in the proxy
22 group over a 13-week period ending on September 11, 2015. An average stock price is
23 less susceptible to market price variations than a spot price. Therefore, an average stock
24 price is less susceptible to aberrant market price movements, which may not reflect the
25 stock's long-term value.

26 A 13-week average stock price reflects a period that is still short enough to
27 contain data that reasonably reflects current market expectations, but the period is not so
28 short as to be susceptible to market price variations that may not reflect the stock's

1 long-term value. In my judgment, a 13-week average stock price is a reasonable balance
2 between the need to reflect current market expectations and the need to capture sufficient
3 data to smooth out aberrant market movements.

4 **Q. WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF**
5 **MODEL?**

6 **A.** I used the most recently paid quarterly dividend, as reported in *Value Line*.^{12/} This
7 dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce
8 the D_1 factor for use in Equation 2 above.

9 **Q. WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**
10 **GROWTH DCF MODEL?**

11 **A.** There are several methods that can be used to estimate the expected growth in dividends.
12 However, regardless of the method, for purposes of determining the market-required
13 return on common equity, one must attempt to estimate investors' consensus about what
14 the dividend or earnings growth rate will be, and not what an individual investor or
15 analyst may use to make individual investment decisions.

16 As predictors of future returns, security analysts' growth estimates have been
17 shown to be more accurate than growth rates derived from historical data.^{13/} That is,
18 assuming the market generally makes rational investment decisions, analysts' growth
19 projections are more likely to influence investors' decisions which are captured in
20 observable stock prices than growth rates derived only from historical data.

21 For my constant growth DCF analysis, I have relied on a consensus, or mean, of
22 professional security analysts' earnings growth estimates as a proxy for investor
23 consensus dividend growth rate expectations. I used the average of analysts' growth rate

^{12/} *The Value Line Investment Survey*, July 31, August 21, September 4, and September 18, 2015.

^{13/} See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 estimates from three sources: Zacks, SNL, and Reuters. All such projections were
2 available on September 15, 2015, as reported online. These analysts' growth rate
3 projections are for three to five years out.

4 Each consensus growth rate projection is based on a survey of security analysts.
5 There is no clear evidence whether a particular analyst is most influential on general
6 market investors. Therefore, a single analyst's projection does not as reliably predict
7 consensus investor outlooks as does a consensus of market analysts' projections. The
8 consensus estimate is a simple arithmetic average, or mean, of surveyed analysts'
9 earnings growth forecasts. A simple average of the growth forecasts gives equal weight
10 to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of
11 analyst forecasts is a good proxy for market consensus expectations.

12 **Q. WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT**
13 **GROWTH DCF MODEL?**

14 **A.** The growth rates I used in my DCF analysis are shown in Exhibit NWIGU-CUB/105.
15 The average growth rate for my gas proxy group is 5.27%. The average growth rate for
16 my combination proxy group is 5.26%.

17 **Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

18 **A.** As shown in Exhibit NWIGU-CUB/106, page 1, the average and median constant growth
19 DCF returns for my gas proxy group are 8.76% and 8.89%, respectively. The average
20 and median constant growth DCF returns for my combination proxy group are 9.37% and
21 9.51%, respectively.

22 **Q. DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT**
23 **GROWTH DCF ANALYSIS?**

24 **A.** Yes. The constant growth DCF analysis for my proxy groups is based on long-term
25 sustainable growth rates of 5.27% and 5.26%. These growth rates are higher than my

1 estimate of a maximum long-term sustainable growth rate of 4.6%, which I discuss later
2 in this testimony. I will take into consideration my conclusion that these proxy groups'
3 three- to five-year growth rates are too high to be a rational outlook for long-term
4 sustainable growth in interpreting my DCF return results. I believe the constant growth
5 DCF analysis produces slightly overstated return estimates.

6 **Q. HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE**
7 **GROWTH RATE?**

8 **A.** A long-term sustainable growth rate for a utility stock cannot exceed the growth rate of
9 the economy in which it sells its goods and services. Hence, a reasonable proxy for the
10 long-term maximum sustainable growth rate for a utility investment is best proxied by the
11 projected long-term Gross Domestic Product (“GDP”). *Blue Chip Financial Forecasts*
12 projects that over the next 5 and 10 years, the U.S. nominal GDP will grow in the range
13 of 4.7% to 4.4%. As such, the average growth rate over the next 10 years is around 4.6%,
14 which I believe is a reasonable proxy of long-term sustainable growth.^{14/}

15 I discuss in my multi-stage growth DCF analysis academic and investment
16 practitioner evidence that accepts the projected long-term GDP growth outlook as a
17 maximum sustainable growth rate projection. Hence, recognizing the long-term GDP
18 growth rate as a maximum sustainable growth is logical, and generally consistent with
19 academic and economic practitioner accepted practices.

20 **Q. CAN YOU FURTHER EXPLAIN WHY YOU BELIEVE THE GROWTH RATES**
21 **ARE NOT A REASONABLE ESTIMATE OF LONG-TERM SUSTAINABLE**
22 **GROWTH AS REQUIRED BY THE CONSTANT GROWTH DCF MODEL?**

23 **A.** Yes. This will be discussed in greater detail in developing my multi-stage growth DCF
24 model. Effectively, the three- to five-year growth rate for the combination group is more

^{14/} *Blue Chip Financial Forecasts*, June 1, 2015, at 14.

1 than 100 basis points above the projected growth of the U.S. GDP. This short-term
2 growth simply cannot be sustained indefinitely. Again, more details on this maximum
3 sustainable growth rate are discussed later in this testimony.

4 **II.H. Sustainable Growth DCF**

5 **Q. PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM**
6 **GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.**

7 **A.** A sustainable growth rate is based on the percentage of the utility's earnings that is
8 retained and reinvested in utility plant and equipment. These reinvested earnings
9 increase the earnings base (rate base). Earnings grow when plant funded by reinvested
10 earnings is put into service, and the utility is allowed to earn its authorized return on such
11 additional rate base investment.

12 The internal growth methodology is tied to the percentage of earnings retained in
13 the company and not paid out as dividends. The earnings retention ratio is 1 minus the
14 dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases.
15 An increased earnings retention ratio will fuel stronger growth because the business funds
16 more investments with retained earnings.

17 The payout ratios of the proxy groups are shown in my Exhibit
18 NWIGU-CUB/107. These dividend payout ratios and earnings retention ratios then can
19 be used to develop a sustainable long-term earnings retention growth rate. A sustainable
20 long-term earnings retention ratio will help gauge whether analysts' current three- to five-
21 year growth rate projections can be sustained over an indefinite period of time.

22 The data used to estimate the long-term sustainable growth rate is based on the
23 Company's current market-to-book ratio and on *Value Line's* three- to five-year
24 projections of earnings, dividends, earned returns on book equity, and stock issuances.

1 As shown in Exhibit NWIGU-CUB/108, page 1, the average sustainable growth
2 rate for the gas proxy group using this internal growth rate model is 5.59%. As shown in
3 my Exhibit NWIGU-CUB/108, page 3, the average sustainable growth rate for the
4 combination proxy group is 4.84%.

5 **Q. WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM**
6 **GROWTH RATES?**

7 **A.** A DCF estimate based on these sustainable growth rates is developed in Exhibit
8 NWIGU-CUB/109. As shown there, a sustainable growth DCF analysis produces
9 average and median DCF results of 9.17% and 8.89%, respectively, for the gas proxy
10 group. The average and median sustainable growth DCF results for the combination
11 proxy group are 8.94% and 8.69%, respectively.

12 While these growth rate projections are referred to as sustainable long-term
13 growth rates, they are based on projections of earnings, dividends and book value for the
14 utilities three to five years out. Hence, these parameters may change over time, and may
15 result in long-term growth rates being lower than that implied through the sustainable
16 growth rate model.

17 **II.I. Multi-Stage Growth DCF Model**

18 **Q. HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

19 **A.** Yes. My first constant growth DCF is based on consensus analysts' growth rate
20 projections, so it is a reasonable reflection of rational investment expectations over the
21 next three to five years. The limitation on the constant growth DCF model is that it
22 cannot reflect a rational expectation that a period of high/low short-term growth can be
23 followed by a change in growth to a rate that is more reflective of long-term sustainable

1 growth. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of
2 changing growth expectations.

3 **Q. WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?**

4 **A.** Analyst projected growth rates over the next three to five years will change as utility
5 earnings growth outlooks change. Utility companies go through cycles in making
6 investments in their systems. When utility companies are making large investments, their
7 rate base grows rapidly, which accelerates their earnings growth. Once a major
8 construction cycle is completed or levels off, growth in the utility rate base slows, and its
9 earnings growth slows from an abnormally high three- to five-year rate to a lower
10 sustainable growth rate.

11 As major construction cycles extend over longer periods of time, even with an
12 accelerated construction program, the growth rate of the utility will slow simply because
13 rate base growth will slow and the utility has limited human and capital resources
14 available to expand its construction program. Hence, the three- to five-year growth rate
15 projection should be used as a long-term sustainable growth rate only if supported by a
16 reasonable informed judgment to determine whether it considers the current market
17 environment, the industry, and whether the three- to five-year growth outlook is
18 sustainable.

19 **Q. PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

20 **A.** The multi-stage growth DCF model reflects the possibility of non-constant growth for a
21 company over time. The multi-stage growth DCF model reflects three growth periods:
22 (1) a short-term growth period, which consists of the first five years; (2) a transition
23 period, which consists of the next five years (6 through 10); and (3) a long-term growth
24 period, starting in year 11 through perpetuity.

1 For the short-term growth period, I relied on the consensus analysts' growth
2 projections described above in relationship to my constant growth DCF model. For the
3 transition period, the growth rates were reduced or increased by an equal factor, which
4 reflects the difference between the analysts' growth rates and the long-term sustainable
5 growth rate. For the long-term growth period, I assumed each company's growth would
6 converge to the maximum sustainable long-term growth rate.

7 **Q. WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR**
8 **THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

9 **A.** Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
10 economy in which they sell services. Utilities' earnings/dividend growth is created by
11 increased utility investment or rate base. Such investment, in turn, is driven by service
12 area economic growth and demand for utility service. In other words, utilities invest in
13 plant to meet sales demand growth, and sales growth, in turn, is tied to economic growth
14 in their service areas.

15 The U.S. Department of Energy, Energy Information Administration ("EIA") has
16 observed that utility sales growth tracks the U.S. GDP growth, albeit at a lower level, as
17 shown in Exhibit NWIGU-CUB/110. Utility sales growth has lagged behind GDP
18 growth for more than a decade. As a result, nominal GDP growth is a very conservative
19 proxy for utility sales growth, rate base growth, and earnings growth. Therefore, the U.S.
20 GDP nominal growth rate is a conservative proxy for the highest sustainable long-term
21 growth rate of a utility.

1 **Q. IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER**
2 **THE LONG TERM, A COMPANY’S EARNINGS AND DIVIDENDS CANNOT**
3 **GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

4 **A.** Yes. This concept is supported in both published analyst literature and academic work.
5 Specifically, in a textbook entitled “Fundamentals of Financial Management,” published
6 by Eugene Brigham and Joel F. Houston, the authors state as follows:

7 The constant growth model is most appropriate for mature companies with
8 a stable history of growth and stable future expectations. Expected growth
9 rates vary somewhat among companies, but dividends for mature firms are
10 often expected to grow in the future at about the same rate as nominal
11 gross domestic product (real GDP plus inflation).^{15/}

12 **Q. IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE**
13 **NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS**
14 **WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

15 **A.** Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP
16 compared to the geometric growth of the U.S. stock market. Morningstar measures the
17 historical geometric growth of the U.S. stock market over the period 1926-2014 to be
18 approximately 5.9%. During this same time period, the U.S. nominal compound annual
19 growth of the U.S. GDP was approximately 6.2%.^{16/}

20 As such, the compound geometric growth of the U.S. nominal GDP has been
21 higher but comparable to the nominal growth of the U.S. stock market capital
22 appreciation. This historical relationship indicates the U.S. GDP growth outlook is a
23 conservative estimate of the long-term sustainable growth of U.S. stock investments.

^{15/} “Fundamentals of Financial Management,” Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

^{16/} Morningstar, Inc., Ibbotson SBBI 2015 Classic Yearbook inflation rate of 3.0% at 91, and U.S. Bureau of Economic Analysis, August 27, 2015.

1 **Q. HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH**
2 **RATE THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE**
3 **MARKET?**

4 **A.** I relied on the consensus analysts' projections of long-term GDP growth. *Blue Chip*
5 *Financial Forecasts* publishes consensus economists' GDP growth projections twice a
6 year. These consensus analysts' GDP growth outlooks are the best available measure of
7 the market's assessment of long-term GDP growth. These analyst projections reflect all
8 current outlooks for GDP, as reflected in analyst projections, and are likely the most
9 influential on investors' expectations of future growth outlooks. The consensus
10 economists' published GDP growth rate outlook is 4.7% to 4.4% over the next
11 10 years.^{17/}

12 Therefore, I propose to use the consensus economists' projected 5- and 10-year
13 average GDP consensus growth rates of 4.7% and 4.4%, respectively, as published by
14 *Blue Chip Financial Forecasts*, as an estimate of long-term sustainable growth. *Blue*
15 *Chip Financial Forecasts* projections provide real GDP growth projections of 2.5% and
16 2.3%, and GDP inflation of 2.1%,^{18/} over the 5-year and 10-year projection periods,
17 respectively. These consensus GDP growth forecasts represent the most likely views of
18 market participants because they are based on published consensus economist
19 projections.

20 **Q. DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**
21 **GROWTH?**

22 **A.** Yes, and these sources corroborate my consensus analysts' projections. The EIA in its
23 *Annual Energy Outlook* projects real GDP out until 2040. In its 2015 Annual Report, the
24 EIA projects real GDP through 2040 to be in the range of 1.8% to 2.9%, with a midpoint

^{17/} *Blue Chip Financial Forecasts*, June 1, 2015, at 14.

^{18/} *Id.*

1 or reference case of 2.4%, and a long-term GDP price inflation projection of 1.8%. The
2 EIA data supports a long-term nominal GDP growth outlook of 4.2%.^{19/}

3 Also, the Congressional Budget Office (“CBO”) makes long-term economic
4 projections. The CBO is projecting real GDP growth of 2.4% to 2.1% during the next 5
5 and 10 years, respectively, with a GDP price inflation outlook of 2.0%.^{20/} The CBO’s
6 real GDP and GDP inflation projections are slightly lower than the consensus
7 economists. The five- and 10-year outlooks for nominal GDP based on these projections
8 are 4.45% and 4.1%, respectively.

9 Moody’s Analytics also makes long-term economic projections. In its recent 30-
10 year outlook to 2044, Moody’s Analytics is projecting real GDP growth of 2.0% with
11 GDP inflation of 2.2%.^{21/} Moody’s projection of real GDP and GDP inflation is slightly
12 below the consensus economists. Based on these projections, Moody’s is projecting
13 nominal GDP growth of 4.2% over the next 30 years.

14 The Social Security Administration makes long-term economic projections out to
15 2090. The Social Security Administration’s nominal GDP projections, under its
16 intermediate cost scenario for 30 and 75 years, ranges from 4.5% to 4.4%, respectively.^{22/}
17 These projections are in line with the consensus economists.

18 The Economist Intelligence Unit, a division of *The Economist* and a third-party
19 data provider to SNL Financial, makes a long-term economic projection out to 2030.^{23/}

20 The Economist Intelligence Unit is projecting real GDP growth of 2.2% with an inflation

^{19/} DOE/EIA *Annual Energy Outlook 2015 With Projections to 2040*, April 2015, at 4 and A-38.

^{20/} CBO: *The Budget and Economic Outlook: Fiscal Years 2015 to 2025*, January 2015, at 154.

^{21/} www.economy.com, *Moody’s Analytics Forecast*, July 6, 2015.

^{22/} www.ssa.gov, “2014 OASDI Trustees Report,” Table VI.G4.

^{23/} SNL Financial, *Economist Intelligence Unit*, downloaded on September 10, 2015.

1 rate of 2.0% out to 2030. The real GDP growth projection is in line with the consensus
2 economists, while projected inflation is slightly higher. The long-term nominal GDP
3 projection based on these outlooks is approximately 4.2%.

4 The real GDP and nominal GDP growth projections made by these independent
5 sources support the use of the consensus economist 5-year and 10-year projected GDP
6 growth outlooks as a reasonable estimate of market participants' long-term GDP growth
7 outlooks.

8 **Q. WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN**
9 **YOUR MULTI-STAGE GROWTH DCF ANALYSIS?**

10 **A.** I relied on the same 13-week average stock prices and the most recent quarterly dividend
11 payment data discussed above. For stage one growth, I used the consensus analysts'
12 growth rate projections discussed above in my constant growth DCF model. The first
13 stage growth covers the first five years, consistent with the term of the analyst growth
14 rate projections. The second stage, or transition stage, begins in year 6 and extends
15 through year 10. The second stage growth transitions the growth rate from the first stage
16 to the third stage using a linear trend. For the third stage, or long-term sustainable growth
17 stage, which starts in year 11, I used a 4.6% long-term sustainable growth rate, which
18 conservatively is based on the consensus economists' long-term projected nominal GDP
19 growth rate.

20 **Q. WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF**
21 **MODEL?**

22 **A.** As shown in Exhibit NWIGU-CUB/111, the average and median DCF returns on equity
23 for my gas proxy group using the 13-week average stock price are 8.21% and 8.28%,
24 respectively. The average and median DCF returns on equity for my combination proxy
25 group are 8.84% and 8.69%, respectively.

1 **Q. PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

2 **A.** The results from my DCF analyses are summarized in Table 4 below:

Description	Gas Proxy Group Average (1)	Combination Proxy Group Average (2)
Constant Growth DCF Model (Analysts' Growth)	8.76%	9.37%
Constant Growth DCF Model (Sustainable Growth)	9.17%	8.94%
Multi-Stage Growth DCF Model	<u>8.21%</u>	<u>8.84%</u>
Average	8.71%	9.05%

3 I concluded that my DCF studies indicate a return on equity of 8.9% for Avista.
 4 As discussed above, I believe certain constant growth DCF estimates using three- to five-
 5 year growth rate projections that are far too high to be rational estimates of long-term
 6 sustainable growth, and produce overstated DCF results. However, I am also concerned
 7 about my low-end DCF estimate as being reflective of capital cost when the rates
 8 determined in this case will be in effect. Therefore, I recommend a range of DCF returns
 9 of 8.7% to 9.1%, with a midpoint estimate of 8.9% for Avista based on my DCF studies.

10 **II.J. Risk Premium Model**

11 **Q. PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

12 **A.** This model is based on the principle that investors require a higher return to assume
 13 greater risk. Common equity investments have greater risk than bonds because bonds
 14 have more security of payment in bankruptcy proceedings than common equity and the

1 coupon payments on bonds represent contractual obligations. In contrast, companies are
2 not required to pay dividends or guarantee returns on common equity investments.
3 Therefore, common equity securities are considered to be more risky than bond
4 securities.

5 This risk premium model is based on two estimates of an equity risk premium.
6 First, I estimated the difference between the required return on utility common equity
7 investments and U.S. Treasury bonds. The difference between the required return on
8 common equity and the Treasury bond yield is the risk premium. I estimated the risk
9 premium on an annual basis for each year over the period 1986 through March 2015.
10 The common equity required returns were based on regulatory commission-authorized
11 returns for utility companies. Authorized returns are typically based on expert witnesses'
12 estimates of the contemporary investor-required return.

13 The second equity risk premium estimate is based on the difference between
14 regulatory commission-authorized returns on common equity and contemporary
15 "A" rated utility bond yields by Moody's. I selected the period 1986 through June 2015
16 because public utility stocks consistently traded at a premium to book value during that
17 period. This is illustrated in Exhibit NWIGU-CUB/112, which shows that the market to
18 book ratio since 1986 for the utility industry was consistently above a multiple of 1.0x.
19 Over this period, regulatory authorized returns were sufficient to support market prices
20 that at least exceeded book value. This is an indication that regulatory authorized returns
21 on common equity supported a utility's ability to issue additional common stock without
22 diluting existing shares. It further demonstrates that utilities were able to access equity
23 markets without a detrimental impact on current shareholders.

1 Based on this analysis, as shown in Exhibit NWIGU-CUB/113, the average
2 indicated equity risk premium over U.S. Treasury bond yields has been 5.31%. Since the
3 risk premium can vary depending upon market conditions and changing investor risk
4 perceptions, I believe using an estimated range of risk premiums provides the best
5 method to measure the current return on common equity for a risk premium
6 methodology.

7 I incorporated five-year and 10-year rolling average risk premiums over the study
8 period to gauge the variability over time of risk premiums. These rolling average risk
9 premiums mitigate the impact of anomalous market conditions and skewed risk
10 premiums over an entire business cycle. As shown on my Exhibit NWIGU-CUB/113,
11 the five-year rolling average risk premium over Treasury bonds ranged from 4.17% to
12 6.52%, while the 10-year rolling average risk premium ranged from 4.30% to 6.15%.

13 As shown on my Exhibit NWIGU-CUB/114, the average indicated equity risk
14 premium over contemporary Moody's utility bond yields was 3.93%. The five-year and
15 10-year rolling average risk premiums ranged from 2.80% to 5.39% and 3.11% to 4.81%,
16 respectively.

17 **Q. DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE**
18 **BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO**
19 **DRAW ACCURATE CONCLUSIONS CONCERNING CONTEMPORARY**
20 **MARKET CONDITIONS?**

21 **A.** No. The time period I use in this risk premium study is a generally accepted period to
22 develop a risk premium study using "expectational" data.

23 Contemporary market conditions can change dramatically during the period that
24 rates determined in this proceeding will be in effect. A relatively long period of time
25 where stock valuations reflect premiums to book value is an indication that the authorized

1 returns on equity and the corresponding equity risk premiums were supportive of
2 investors' return expectations and provided utilities access to the equity markets under
3 reasonable terms and conditions. Further, this time period is long enough to smooth
4 abnormal market movement that might distort equity risk premiums. While market
5 conditions and risk premiums do vary over time, this historical time period is a
6 reasonable period to estimate contemporary risk premiums.

7 Alternatively, studies have recommended that use of "actual achieved investment
8 return data" in a risk premium study should be based on long historical time periods. The
9 studies find that achieved returns over short time periods may not reflect investors'
10 expected returns due to unexpected and abnormal stock price performance. Short-term
11 abnormal actual returns would be smoothed over time and the achieved actual investment
12 returns over long time periods would approximate investors' expected returns.
13 Therefore, it is reasonable to assume that averages of annual achieved returns over long
14 time periods will generally converge on the investors' expected returns.

15 My risk premium study is based on expectational data, not actual investment
16 returns, and, thus, need not encompass a very long historical time period.

17 **Q. BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED**
18 **TO ESTIMATE AVISTA'S COST OF COMMON EQUITY IN THIS**
19 **PROCEEDING?**

20 **A.** The equity risk premium should reflect the relative market perception of risk in the utility
21 industry today. I have gauged investor perceptions in utility risk today in Exhibit
22 NWIGU-CUB/115. In that exhibit, I show the yield spread between utility bonds and
23 Treasury bonds over the last 36 years. As shown in this exhibit, the average utility bond
24 yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical
25 period are 1.52% and 1.95%, respectively. The utility bond yield spreads over Treasury

1 bonds for “A” and “Baa” rated utilities through June 2015 were 1.16% and 1.93%,
2 respectively. The current average “A” and “Baa” rated utility bond yield spreads over
3 Treasury bond yields are now lower than the 36-year average spreads.

4 A current 13-week average “A” rated utility bond yield of 4.35%, when compared
5 to the current Treasury bond yield of 2.99% as shown in Exhibit NWIGU-CUB/116, page
6 1, implies a yield spread of around 136 basis points. This current utility bond yield
7 spread is lower than the 36-year average spread for “A” rated utility bonds of 1.52%.
8 The current spread for the “Baa” rated utility bond yield of 2.25% is higher than the
9 36-year average spread of 1.95%.

10 **Q. HOW DID YOU ESTIMATE AVISTA’S COST OF COMMON EQUITY WITH**
11 **THIS RISK PREMIUM MODEL?**

12 **A.** I added a projected long-term Treasury bond yield to my estimated equity risk premium
13 over Treasury yields. The 13-week average 30-year Treasury bond yield, ending
14 September 11, 2015, was 2.99%, as shown in Exhibit NWIGU-CUB/116, page 1. *Blue*
15 *Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 3.80%, and a
16 10-year Treasury bond yield to be 3.2% in the near term.^{24/} Using the projected 30-year
17 Treasury bond yield of 3.80%, and a Treasury bond risk premium of 4.17% to 6.52%, as
18 developed above, produces an estimated common equity return in the range of 7.97%
19 (3.80% + 4.17%) to 10.32% (3.80% + 6.52%). My risk premium estimates fall in the
20 range of 7.97% to 10.32%.

21 I next added my equity risk premium over utility bond yields to a current 13-week
22 average yield on “Baa” rated utility bonds for the period ending September 11, 2015, of
23 5.24%. Adding the utility equity risk premium of 2.80% to 5.39%, as developed above,

^{24/} *Blue Chip Financial Forecasts*, September 1, 2015.

1 to a “Baa” rated bond yield of 5.24%, produces a cost of equity in the range of 8.04%
2 (5.24% + 2.80%) to 10.63% (5.24% + 5.39%). Based on this methodology my risk
3 premium estimates fall in the range of 8.04% to 10.63%.

4 **Q. WHAT IS YOUR RECOMMENDED RETURN FOR AVISTA BASED ON YOUR**
5 **RISK PREMIUM STUDY?**

6 **A.** My recommendation considers both utility security risk and market interest rate risk.
7 Current interest rate spreads suggest the market is embracing utility investments as
8 relatively low-risk investment alternatives. This is clearly evident from the low utility
9 bond spreads relative to Treasury bonds currently compared to the historical time period
10 studied.^{25/} Also, the market is pricing Baa utility bonds to produce lower yields
11 compared to general corporate Baa bonds. On average over time, Baa utility bond yields
12 are higher than Baa corporate bond yields, but not currently.^{26/} All of this supports my
13 conclusion that the utility industry is perceived as a low-risk stable investment and noted
14 by S&P and Moody’s in recent reports.¹

15 On the other hand, the Federal Reserve has been procuring long-term Treasury
16 and collateralized bonds in an effort to stimulate the U.S. economy. This stimulus has
17 reduced long-term interest rates. This government stimulus initiative was terminated in
18 October 2014. The termination of the Federal Reserve’s stimulus has not caused
19 long-term interest rates to increase; however, I believe there continues to be risk in
20 long-term interest rate markets.

21 I recommend giving more weight to the high-end of my risk premium results to
22 reflect the greater current market interest rate risk. I propose to provide 70% weight to
23 the high-end of my risk premium estimates and 30% to the low-end of my risk premium

^{25/} See Exhibit NWIGU-CUB/115.

^{26/} *Id.*

1 estimates. Providing more weight to the high-end risk premium captures the greater
2 market interest rate risk. This results in a risk premium estimate over Treasury bond
3 yields of 9.62%,^{27/} and a risk premium estimate over Baa utility bond yields of 9.85%.^{28/}

4 My risk premium analyses produce a return estimate in the range of 9.62% to
5 9.85%, with a midpoint of 9.74%, rounded to 9.75%.

6 **II.K. Capital Asset Pricing Model (“CAPM”)**

7 **Q. PLEASE DESCRIBE THE CAPM.**

8 **A.** The CAPM method of analysis is based upon the theory that the market-required rate of
9 return for a security is equal to the risk-free rate, plus a risk premium associated with the
10 specific security. This relationship between risk and return can be expressed
11 mathematically as follows:

$$12 \quad R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

13 R_i = Required return for stock i

14 R_f = Risk-free rate

15 R_m = Expected return for the market portfolio

16 B_i = Beta - Measure of the risk for stock

17 The stock-specific risk term in the above equation is beta. Beta represents the
18 investment risk that cannot be diversified away when the security is held in a diversified
19 portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be
20 eliminated by balancing the portfolio with securities that react in the opposite direction to
21 firm-specific risk factors (e.g., business cycle, competition, product mix, and production
22 limitations).

^{27/} 70% (10.32%) + 30% (7.97%) = 9.62%.

^{28/} 70% (10.63%) + 30% (8.04%) = 9.85%.

1 The risks that cannot be eliminated when held in a diversified portfolio are non-
2 diversifiable risks. Non-diversifiable risks are related to the market in general and are
3 referred to as systematic risks. Risks that can be eliminated by diversification are
4 regarded as non-systematic risks. In a broad sense, systematic risks are market risks, and
5 non-systematic risks are business risks. The CAPM theory suggests that the market will
6 not compensate investors for assuming risks that can be diversified away. Therefore, the
7 only risk that investors will be compensated for are systematic or non-diversifiable risks.
8 The beta is a measure of the systematic or non-diversifiable risks.

9 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

10 **A.** The CAPM requires an estimate of the market risk-free rate, the company's beta, and the
11 market risk premium.

12 **Q. WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE**
13 **RATE?**

14 **A.** As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
15 yield is 3.80%.^{29/} The current 30-year Treasury bond yield is 2.99%, as shown in Exhibit
16 NWIGU-CUB/116, page 1. I used *Blue Chip Financial Forecasts'* projected 30-year
17 Treasury bond yield of 3.80% for my CAPM analysis.

18 **Q. WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN**
19 **ESTIMATE OF THE RISK-FREE RATE?**

20 **A.** Treasury securities are backed by the full faith and credit of the United States
21 government, so long-term Treasury bonds are considered to have negligible credit risk.
22 Also, long-term Treasury bonds have an investment horizon similar to that of common
23 stock. As a result, investor-anticipated long-run inflation expectations are reflected in
24 both common stock required returns and long-term bond yields. Therefore, the nominal

^{29/} *Blue Chip Financial Forecasts*, September 1, 2015 at 2.

1 risk-free rate (or expected inflation rate and real risk-free rate) included in a long-term
2 bond yield is a reasonable estimate of the nominal risk-free rate included in common
3 stock returns.

4 Treasury bond yields, however, do include risk premiums related to unanticipated
5 future inflation and interest rates. A Treasury bond yield is not a risk-free rate. Risk
6 premiums related to unanticipated inflation and interest rates are systematic or market
7 risks. Consequently, for companies with betas less than 1.0, using the Treasury bond
8 yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated
9 estimate of the CAPM return.

10 **Q. WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

11 **A.** As shown in Exhibit NWIGU-CUB/117, the average *Value Line* beta estimate is 0.80 for
12 the gas proxy group and 0.73 for the combination proxy group.

13 **Q. HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

14 **A.** I derived two market risk premium estimates, a forward-looking estimate and one based
15 on a long-term historical average.

16 The forward-looking estimate was derived by estimating the expected return on
17 the market (as represented by the S&P 500) and subtracting the risk-free rate from this
18 estimate. I estimated the expected return on the S&P 500 by adding an expected inflation
19 rate to the long-term historical arithmetic average real return on the market. The real
20 return on the market represents the achieved return above the rate of inflation.

21 Morningstar's *Stocks, Bonds, Bills and Inflation 2015 Classic Yearbook* estimates
22 the historical arithmetic average real market return over the period 1926 to 2014 as

1 8.9%.^{30/} A current consensus analysts' inflation projection, as measured by the
2 Consumer Price Index, is 2.3%.^{31/} Using these estimates, the expected market return is
3 11.40%.^{32/} The market risk premium then is the difference between the 11.40% expected
4 market return, and my 3.80% risk-free rate estimate, or approximately 7.6%.

5 The historical estimate of the market risk premium was also estimated by
6 Morningstar in *Stocks, Bonds, Bills and Inflation 2015 Classic Yearbook*. Over the
7 period 1926 through 2014, Morningstar's study estimated that the arithmetic average of
8 the achieved total return on the S&P 500 was 12.1%,^{33/} and the total return on long-term
9 Treasury bonds was 6.10%.^{34/} The indicated market risk premium is 6.0% (12.1% - 6.1%
10 = 6.0%). The average of my market risk premium estimates is 6.80% (6.0% to 7.6%).

11 **Q. HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE**
12 **COMPARE TO THAT ESTIMATED BY MORNINGSTAR?**

13 **A.** Morningstar's analysis indicates that a market risk premium falls somewhere in the range
14 of 6.3% to 7.0%. My market risk premium falls in the range of 6.0% to 7.6%. My
15 average market risk premium of 6.80% is within Morningstar's range.

16 Morningstar estimates a forward-looking market risk premium based on actual
17 achieved data from the historical period of 1926 through 2014. Using this data,
18 Morningstar estimates a market risk premium derived from the total return on large
19 company stocks (S&P 500), less the income return on Treasury bonds. The total return
20 includes capital appreciation, dividend or coupon reinvestment returns, and annual yields
21 received from coupons and/or dividend payments. The income return, in contrast, only

^{30/} *Morningstar, Inc., Ibbotson SBI 2015 Classic Yearbook* at 92.

^{31/} *Blue Chip Financial Forecasts*, September 1, 2015 at 2.

^{32/} $\{ [(1 + 0.089) * (1 + 0.023)] - 1 \} * 100$.

^{33/} *Morningstar, Inc., Ibbotson SBI 2015 Classic Yearbook* at 91.

^{34/} *Id.*

1 reflects the income return received from dividend payments or coupon yields.
2 Morningstar argues that the income return is the only true risk-free rate associated with
3 Treasury bonds and is the best approximation of a truly risk-free rate.^{35/} I disagree with
4 this assessment from Morningstar, because it does not reflect a true investment option
5 available to the marketplace and therefore does not produce a legitimate estimate of the
6 expected premium of investing in the stock market versus that of Treasury bonds.
7 Nevertheless, I will use Morningstar's conclusion to show the reasonableness of my
8 market risk premium estimates.

9 Morningstar's range is based on several methodologies. First, Morningstar
10 estimates a market risk premium of 7.0% based on the difference between the total
11 market return on common stocks (S&P 500) less the income return on Treasury bond
12 investments. Second, Morningstar found that if the New York Stock Exchange
13 ("NYSE") was used as the market index rather than the S&P 500, that the market risk
14 premium would be 6.8%, not 7.0%. Third, if only the two deciles of the largest
15 companies included in the NYSE were considered, the market risk premium would be
16 6.3%.^{36/}

17 Finally, Morningstar found that the 7.0% market risk premium based on the S&P
18 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios relative
19 to earnings and dividend growth during the period 1980 through 2001. Morningstar
20 believes this abnormal P/E expansion is not sustainable.^{37/} Therefore, Morningstar
21 adjusted this market risk premium estimate to normalize the growth in the P/E ratio to be

^{35/} *Id.* at 153.

^{36/} Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 152.

^{37/} *Id.* at 156.

1 more in line with the growth in dividends and earnings. Based on this alternative
2 methodology, Morningstar published a long-horizon supply-side market risk premium of
3 6.2%.³⁸

4 **Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

5 **A.** As shown in Exhibit NWIGU-CUB/118, based on my market risk premium estimates of
6 6.0% and 7.6%, a risk-free rate of 3.8%, and a beta of 0.80, the CAPM analysis produces
7 a return of 8.60% to 9.88%, with a midpoint of 9.24%. Similarly, using the same inputs
8 and a beta of 0.73 for my combination group produces a CAPM return in the range of
9 8.18% to 9.35%, with a midpoint of 8.76%.

10 Therefore, based on my CAPM return estimates I conclude that the return on
11 equity for Avista falls in the range of 8.76% to 9.24%, with a midpoint of 9.0%.

12 **II.L. Return on Equity Summary**

13 **Q. BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
14 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY**
15 **DO YOU RECOMMEND FOR AVISTA?**

16 **A.** Based on my analyses, I estimate Avista's current market cost of equity to be 9.35%.

<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	8.90%
Risk Premium	9.75%
CAPM	9.0%

^{38/} *Id.* at 157.

1 My recommended return on common equity of 9.35% is at the midpoint of my
2 estimated range of 8.9% to 9.8%. The high-end of my estimated range is based on my
3 risk premium analysis. The low-end is based on my DCF studies. The CAPM return
4 estimate falls within this recommended range.

5 This range reflects current market capital costs, increased interest rate risk in the
6 current market due to Federal Reserve policies and other factors, and represents fair
7 compensation to Avista's investors for the total investment risk of its regulated utility.

8 **II.M. Financial Integrity**

9 **Q. WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN**
10 **INVESTMENT GRADE BOND RATING FOR AVISTA?**

11 **A.** Yes. I have reached this conclusion by comparing the key credit rating financial ratios
12 for Avista, at my proposed return on equity, and the Company's proposed capital
13 structure, to S&P's benchmark financial ratios using S&P's new credit metric ranges.

14 **Q. PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**
15 **METRIC METHODOLOGY.**

16 **A.** S&P publishes a matrix of financial ratios that correspond to its assessment of the
17 business risk of utility companies and related bond ratings. On May 27, 2009, S&P
18 expanded its matrix criteria by including additional business and financial risk
19 categories.^{39/}

20 Based on S&P's most recent credit matrix, the business risk profile categories are
21 "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities
22 have a business risk profile of "Excellent" or "Strong."

^{39/} S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded,"* May 27, 2009.

1 The financial risk profile categories are “Minimal,” “Modest,” “Intermediate,”
2 “Significant,” “Aggressive,” and “Highly Leveraged.” Most of the utilities have a
3 financial risk profile of “Aggressive.” Avista has a “Strong” business risk profile and a
4 “Significant” financial risk profile.

5 **Q. PLEASE DESCRIBE S&P’S USE OF THE FINANCIAL BENCHMARK RATIOS**
6 **IN ITS CREDIT RATING REVIEW.**

7 **A.** S&P evaluates a utility’s credit rating based on an assessment of its financial and
8 business risks. A combination of financial and business risks equates to the overall
9 assessment of Avista’s total credit risk exposure. On November 19, 2013, S&P updated
10 its methodology. In its update, S&P published a matrix of financial ratios that defines the
11 level of financial risk as a function of the level of business risk.

12 S&P publishes ranges for three primary financial ratios that it uses as guidance in
13 its credit review for utility companies. The two core financial ratio benchmarks it relies
14 on in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,
15 Depreciation and Amortization (“EBITDA”); and (2) Funds From Operations (“FFO”) to
16 Total Debt.^{40/}

17 **Q. HOW DID YOU APPLY S&P’S FINANCIAL RATIOS TO TEST THE**
18 **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

19 **A.** I calculated each of S&P’s financial ratios based on Avista’s cost of service for its retail
20 jurisdictional operations. While S&P would normally look at total consolidated Avista
21 financial ratios in its credit review process, my investigation in this proceeding is not the
22 same as S&P’s. I am attempting to judge the reasonableness of my proposed cost of
23 capital for rate-setting in Avista’s retail regulated utility operations. Hence, I am
24 attempting to determine whether my proposed rate of return will in turn support cash flow

^{40/} *Standard & Poor’s RatingsDirect*: “Criteria: Corporate Methodology,” November 19, 2013.

1 metrics, balance sheet strength, and earnings that will support an investment grade bond
2 rating and Avista's financial integrity.

3 **Q. DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT EQUIVALENTS?**

4 **A.** Yes. As shown on page 3 of my Exhibit NWIGU-CUB/119, I included \$54.3 million of
5 off-balance sheet debt equivalents including power purchase agreements and operating
6 leases and their associated interest and depreciation expenses. I did not include some of
7 the off-balance sheet debt equivalents that S&P includes in its credit rating review.
8 Certain off-balance sheet debt equivalents and accrued interest expense were excluded
9 from my jurisdictional credit metric study because these items are controllable by utility
10 management or do not relate to regulated cost of service.

11 **Q. PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS**
12 **FOR AVISTA.**

13 **A.** The S&P financial metric calculations for Avista at a 9.35% return are developed on
14 Exhibit NWIGU-CUB/119, pages 1-3. S&P currently rates Avista's business risk as
15 "Strong" and financial risk as "Significant." The credit metrics produced below, with
16 this financial and business risk outlook by S&P, will be used to assess the strength of the
17 credit metrics based on Avista's retail operations in Oregon.

18 Avista's adjusted total debt ratio for retail cost of service is approximately 54%.
19 This adjusted debt ratio is generally comparable to the adjusted debt ratios for utilities
20 with an S&P bond rating of BBB, which is comparable to Avista's bond rating. Hence, I
21 concluded this capital structure reasonably supports Avista's current investment grade
22 bond rating. This adjusted total debt ratio will support an investment grade bond rating.

23 Based on an equity return of 9.35%, Avista will be provided an opportunity to
24 produce a debt to EBITDA ratio of 3.3x, which is within S&P's "Intermediate" guideline

1 range of 2.5x to 3.5x,^{41/} which reflects less risk and stronger metrics than needed to
2 support Avista's financial risk ranking of "Significant."

3 Avista's retail operations FFO to total debt coverage at a 9.35% equity return is
4 28%. The FFO to debt ratio projected for 2016 is within S&P's "Intermediate" range of
5 23% to 35%. These FFO/total debt ratios will support an investment grade bond rating.

6 At my recommended return on equity of 9.35% and the Company's proposed
7 embedded debt cost and capital structure, Avista's financial credit metrics are supportive
8 of its investment grade utility bond rating.

9 **III. RESPONSE TO AVISTA WITNESS MR. ADRIEN MCKENZIE**

10 **Q. WHAT IS AVISTA'S RETURN ON EQUITY RECOMMENDATION?**

11 **A.** Avista recommends a return on equity of 9.9%, which is within the Company's rate of
12 return witness, Mr. McKenzie's recommended range of 9.6% to 10.9%. Mr. McKenzie's
13 range is based on a range of 9.5% to 10.8%, plus a 10 basis point flotation cost
14 adjustment. (Avista/300/McKenzie/Page 5)

15 Mr. McKenzie's recommended range, and his proposed flotation cost adjustment,
16 are unreasonable and should be rejected. For the reasons discussed below, the 10 basis
17 point flotation cost adjustment is not shown to be just and reasonable for Avista, and his
18 cost estimate of 9.6% to 10.9% overstates a fair return on equity for Avista. These
19 findings are described in detail below.

^{41/} *Id.*

1 **III.A. Flotation Costs**

2 **Q. DID MR. MCKENZIE INCLUDE A FLOTATION COST ADJUSTMENT IN HIS**
3 **RECOMMENDED RETURN FOR AVISTA?**

4 **A.** Yes. Mr. McKenzie asserts that it is appropriate to include a flotation cost adjustment to
5 historical equity issues regardless if the utility is planning on issuing additional shares of
6 stock, or not, to support his position. He acknowledges there is no standard method for
7 reflecting flotation costs in return on equity methodology so he proposes a methodology
8 advocated in certain regulatory finance books and that used by Morgan Stanley. In
9 effect, he grows his proxy group's average dividend yield of 3.2% by a historical average
10 flotation cost of 3.6% observed by Morgan Stanley. This produces a flotation-adjusted
11 dividend yield of 3.3%, or a difference of approximately 10 basis points. This flotation
12 cost adjustment is intended to recover the actual cost a utility incurs by issuing additional
13 stock to the public.

14 **Q. WHY IS MR. MCKENZIE'S FLOTATION COST ADJUSTMENT FLAWED?**

15 **A.** Mr. McKenzie's flotation cost adjustment is not based on the recovery of prudent and
16 reasonable flotation expenses for Avista. Indeed, as Avista acknowledges, it has not
17 paid, nor been allocated, any flotation costs by its parent company. Rather, as discussed
18 at pages 51-53 of Mr. McKenzie's direct testimony, he derives a flotation cost adjustment
19 based on generic cost information of other companies based on a published study.
20 Because he does not show that his adjustment is based on Avista's actual and verifiable
21 flotation expenses, there are no means of verifying whether Mr. McKenzie's proposal is
22 reasonable or appropriate. Stated differently, Mr. McKenzie's flotation cost adder is not
23 based on known and measurable Avista costs. Therefore, the Commission should reject
24 Mr. McKenzie's proposed flotation expense return on equity adder.

1 **Q. HOW DID MR. MCKENZIE DEVELOP HIS RETURN ON EQUITY RANGE?**

2 **A.** Mr. McKenzie developed his return on equity recommendation by applying the DCF, the
3 Empirical CAPM (“ECAPM”), and Risk Premium model to his gas and combination
4 proxy groups. Then he corroborates his results by developing a traditional CAPM, an
5 Expected Earnings analysis and a non-utility DCF model.

6 As shown below in Table 6, Mr. McKenzie’s analyses produce a return on equity
7 in the range of 9.5% to 10.8%. However, reasonable adjustments to Mr. McKenzie’s
8 DCF, ECAPM and Risk Premium studies reduces his return on equity estimate for Avista
9 to no higher than my recommended return on equity of 9.35%.

TABLE 6
Mr. McKenzie's ROE Analysis

<u>Model</u>	<u>Average</u>		<u>Adjusted</u>	
	<u>Gas</u> <u>(1)</u>	<u>Combination</u> <u>(2)</u>	<u>Gas</u> <u>(3)</u>	<u>Combination</u> <u>(4)</u>
DCF Midpoint	8.6% - 10.3%	8.5% - 10.0%	8.3% - 9.6%	8.2% - 9.3% 8.9%
<u>ECAPM (Current)</u>				
Unadjusted	10.1%	9.8%	9.8%	9.3%
Size Adjusted	11.6	10.6%		Reject
Midpoint				9.6%
<u>ECAPM (Projected)</u>				
Unadjusted	10.4%	10.0%	9.8%	9.3%
Size Adjusted	11.8%	10.9%		Reject
Midpoint				9.6%
<u>Risk Premium</u>				
Current		10.1%		8.0%
Projected		<u>11.2%</u>		9.3%
Average		10.7%		
Range		9.5% - 10.8%		8.9% - 9.6%
Flotation Cost Adder		0.1%		Reject
Adjusted Range		9.6% - 10.9%		8.9% - 9.6%
Recommended ROE		9.9%		9.3%
<u>CAPM (Current)</u>				
Unadjusted	9.7%	9.2%	9.8%	9.3%
Size Adjusted	11.1%	10.0%		Reject
<u>CAPM (Projected)</u>				
Unadjusted	10.0%	9.6%		Reject
Size Adjusted	11.4%	10.4%		Reject
<u>Expected Earnings</u>	11.3%	10.7%		Reject
<u>Non-Utility DCF</u>	9.6% - 10.3%			Reject

Sources: Avista/301, Schedule AMM-1.

1 **Q. PLEASE DESCRIBE MR. MCKENZIE'S DCF ANALYSIS.**

2 **A.** Mr. McKenzie applied the traditional DCF model to his gas and combination utility
3 proxy groups. Based on his gas utility proxy group, the DCF results average in the range
4 of 8.6% to 10.3% and 8.5% to 10.0% for the combination proxy group.

5 In developing his recommended DCF range, Mr. McKenzie excluded what he
6 found to be outlier results. Of his 40 gas and 84 combination DCF results, Mr. McKenzie
7 removed 14 low-end outliers without removing any high-end outliers. Therefore, his
8 estimated DCF range is biased and overstated.

9 **Q. CAN MR. MCKENZIE'S DCF ANALYSIS BE ADJUSTED TO PRODUCE**
10 **MORE REASONABLE RESULTS?**

11 **A.** Yes. As noted above, Mr. McKenzie biased his DCF results by removing 14 of his DCF
12 results, that he considered to be too low, thus inflating his overall result. A better method
13 of measuring the central tendency of the proxy group's results would be to measure the
14 median of all the DCF return estimates. In doing so, this would lower Mr. McKenzie's
15 DCF range of 8.6% to 10.3% down to 8.3% to 9.6% for his gas proxy group. Similarly,
16 his range of 8.5% to 10.0% for his combination group will be lowered to 8.2% to 9.3%.
17 Therefore, the midpoint of all his DCF return estimates will result in a return on equity of
18 8.9%, which is identical to my DCF return result.

19 **Q. PLEASE DESCRIBE MR. MCKENZIE'S CURRENT AND PROJECTED**
20 **MARKET RISK PREMIUM EMPIRICAL CAPM ANALYSES.**

21 **A.** Mr. McKenzie developed an Empirical CAPM analysis based on current and projected
22 Treasury bond yields. Mr. McKenzie estimates a projected return on the market of
23 11.5%. From this market return estimate he subtracts his current and projected risk-free
24 rates of 2.9% and 4.3%, to arrive at current and projected market risk premiums of 8.6%
25 and 7.2%, respectively. (Avista/301, Schedule AMM-7).

1 He then uses an ECAPM model that applies a 25% weighting factor to the market
2 beta of one, and a 75% weighting factor to the utility beta.

3 He relies on the *Value Line* utility betas for the companies included in his proxy
4 groups to produce an average cost of equity for his utility proxy groups of 10.1% to
5 10.4%.^{42/}

6 He then adds a size adjustment to his Empirical CAPM return estimate of
7 approximately 1.5% to arrive at his cost of equity for the proxy group of 11.6% to 11.8%.

8 **Q. ARE MR. MCKENZIE'S CURRENT AND PROJECTED EMPIRICAL CAPM**
9 **ANALYSES REASONABLE?**

10 **A.** No. Mr. McKenzie's Empirical CAPM analyses are based on market risk premiums of
11 7.2% to 8.6%. These market risk premium estimates are based on an inflated DCF return
12 on the market. Mr. McKenzie's DCF market return estimate of 11.5% is based on a
13 growth rate projection of 9.2% and a dividend yield of 2.3%.

14 This market DCF return is unreasonable because it is based on an irrationally high
15 market long-term growth outlook of 9.2%.^{43/} It is not rational to expect that the market
16 can grow at a 9.2% annual rate for an indefinite period of time.

17 This is important because the DCF model requires a sustainable long-term growth
18 rate, not simply a growth rate that might be appropriate for the next five years. The
19 growth rate for the overall securities market must reflect the economy in which its
20 companies operate, and the earnings and dividend-paying ability of those companies.
21 Companies produce earnings and dividends by selling goods and services in the

^{42/} Avista/301, Schedule AMM-7.

^{43/} At page 44 of his testimony, Mr. McKenzie asserts that this growth rate is a three- to five-year outlook. However, he used the three- to five-year outlook in a constant growth model, which requires a growth rate that is sustainable indefinitely. As such, despite the source of growth rate data he relied on, he uses this growth rate as a long-term sustainable growth rate on the market.

1 marketplace. Therefore, companies' earnings growth and sales growth opportunities
2 cannot be substantially in excess of the expected growth in the overall economy. It is
3 simply not a rational expectation to believe that, for an extended period of time, the
4 growth rate of companies will exceed the growth of the overall economy in which they
5 sell their goods and services.

6 As I mentioned above, *Blue Chip Financial Forecasts* projects an average 5- to
7 10-year nominal growth in the GDP, or overall U.S. economy, of 4.6%.^{44/} Therefore,
8 expecting a growth rate of 9.2%, in essence, assumes that the securities market can grow
9 at a rate more than twice the growth of the U.S. economy. If a company grows
10 considerably faster than the economy in which it sells its goods and services over time,
11 eventually the company will grow to be a significant percentage of the total economy.
12 This is not a rational outlook because it assumes the market participants within the
13 economy will predominantly do all business or economic activity with the subject
14 company. A more rational outlook is that all companies operating within the economy
15 will grow on average with the economy over the long term at approximately the same
16 rate as the growth in the economy. This way no single company becomes a dominant
17 share of the total economy in which it operates. Assuming a company grows at a rate
18 considerably faster than the economy in which it sells its good and services, is therefore
19 simply not an economical logical outlook.

20 **Q. DO YOU HAVE ANY ADDITIONAL CONCERNS WITH MR. MCKENZIE'S**
21 **EMPIRICAL CAPM ("ECAPM") ANALYSIS?**

22 **A.** Yes. Mr. McKenzie's ECAPM analysis is flawed because his model was developed
23 using adjusted utility betas. An ECAPM analysis flattens the security market line, and is

^{44/} *Blue Chip Financial Forecasts*, June 1, 2015 at 14.

1 designed for raw beta estimates, not adjusted betas. Beta adjustments, on their own,
2 accomplish virtually the same thing as an ECAPM analysis. They flatten the security
3 market line, and increase the intercept at the risk-free rate. ECAPM analysis is not
4 designed to be used with adjusted betas, but rather is designed to be used with unadjusted
5 betas. Mr. McKenzie's proposal to use adjusted betas within an ECAPM analysis is
6 unreasonable and double counts the attempt to flatten the security market line and
7 increase beta estimates for companies with betas below 1, and decrease CAPM estimates
8 for companies with betas greater than 1.

9 **Q. PLEASE DESCRIBE WHY MR. MCKENZIE'S ECAPM ANALYSIS DOUBLE**
10 **COUNTS THE ATTEMPT TO FLATTEN THE SECURITY MARKET LINE,**
11 **AND INCREASE THE CAPM RETURN ESTIMATES FOR COMPANIES WITH**
12 **BETAS LESS THAN 1.**

13 **A.** This flattening of the security market line, or the CAPM return estimate, is redundant
14 with the use of *Value Line's* adjusted betas and, therefore, is unreasonable. The *Value*
15 *Line* beta Mr. McKenzie relied on to estimate a utility beta is already adjusted for the
16 tendencies of betas lower than 1 to increase toward the market beta of 1 over time. That
17 is, an adjusted beta will increase a CAPM return estimate for companies with raw betas
18 less than 1, and decrease CAPM return estimates for companies with raw betas greater
19 than 1. A raw beta is an unadjusted beta. *Value Line* adjusts its raw beta by weighting
20 the raw beta with a market beta of 1. Specifically, *Value Line's* adjusted beta formula is
21 to apply a weight as follows:

$$\text{Adjusted Beta} = \text{Raw Beta} \times 67\% + \text{Market Beta} \times 35\%.$$

23 The practical effect of *Value Line's* beta adjustment is that it flattens the security
24 market line in the same way that the ECAPM does. Consequently, *Value Line's* beta
25 adjustment formula accomplishes the same thing as the ECAPM analysis. Hence, the use

1 of *Value Line* adjusted betas in an ECAPM double-counts this return adjustment. Indeed,
2 comparison is made of the implied ECAPM beta estimate, versus traditional *Value Line*
3 beta estimates as follows:

$$4 \quad \text{CAPM (VL)} = R_f + (.35 + .67 \text{ Br}) * \text{MRP}$$

$$5 \quad \text{CAPM (Empirical)} = R_f + (.25 + .75 \text{ Br}) * \text{MRP}$$

6 Mr. McKenzie's use of an adjusted beta in an ECAPM analysis double-counts the
7 increase to a CAPM return estimate for utility betas less than 1.

$$8 \quad \text{ECAPM (McKenzie)} = R_f + 0.25 + [0.75 * (0.35 + 0.67 \text{ Br})] * \text{MRP}$$

9 I am unaware of any academic support for use of an adjusted beta in an ECAPM
10 analysis. Consequently, Mr. McKenzie's application of an ECAPM analysis with an
11 adjusted beta distorts and erroneously increases the CAPM return estimate for his utility
12 proxy group. As a result, his ECAPM analysis is flawed, and should be rejected.

13 **Q. IS MR. MCKENZIE'S PROPOSAL TO INCREASE HIS CAPM RETURN**
14 **ESTIMATE BY APPROXIMATELY A 1.5% SIZE ADJUSTMENT RETURN**
15 **ADDER APPROPRIATE?**

16 **A.** No. Mr. McKenzie's size adjustment return on equity adder is based on estimates made
17 by Morningstar. However, it is unclear which publication exactly he used. In his
18 Avista/301, Schedule AMM-11, he cited the *2015 Ibbotson SBBI Market Report*.
19 However, he provided the 2014 Report in his workpapers. Based on the publication he
20 provided, Morningstar estimates various size adjustments based on differentials in utility
21 beta estimates tied to the size of a company. There are two problems with this size
22 adjustment. First, the size adjustment, as applied by Mr. McKenzie, is not risk
23 comparable for Avista. Second, Mr. McKenzie did not fully apply Morningstar's CAPM
24 buildup methodology. Morningstar's CAPM buildup methodology includes many
25 external adjustments including: (1) a size adjustment as recognized by Mr. McKenzie,

1 and (2) also an industry risk premium adjustment to reflect the unique risk characteristics
2 of the industry the company operates within. Mr. McKenzie ignored the industry risk
3 premium factor recommended by Morningstar in its CAPM build-up methodology.

4 **Q. WHY IS MR. MCKENZIE'S SIZE ADJUSTMENT TO HIS CAPM RETURN**
5 **NOT RISK COMPARABLE TO AVISTA?**

6 **A.** His size adjustment reflects risks that are not reflective of Avista. The size adjustment
7 recommended by Mr. McKenzie reflects companies that have beta estimates in excess of
8 1.00.^{45/} These beta estimates are substantially higher than the average beta of 0.79 for
9 gas and 0.73 for the combination groups used by Mr. McKenzie as reflective of Avista's
10 investment risk. Therefore, his size adjustment produces a CAPM return estimate that
11 does not produce a risk appropriate return for Avista and therefore, is not a reasonable
12 and fair return for Avista.

13 **Q. PLEASE DESCRIBE WHY MR. MCKENZIE'S PROPOSED SIZE**
14 **ADJUSTMENT IS AN INCOMPLETE APPLICATION OF IBBOTSON'S**
15 **PROPOSED CAPM RETURN BUILD-UP METHODOLOGY.**

16 **A.** Ibbotson Associates' CAPM return build-up methodology includes adjustments to the
17 raw CAPM estimate for both size and industry risk differentials. Mr. McKenzie only
18 included the size adjustment. However, failing to reflect the reduced risk associated with
19 the regulated utility industry results in a significant overstatement of a fair CAPM return
20 estimate for Avista.

21 Specifically, Mr. McKenzie estimates a size adjustment that is appropriate for
22 Avista of a CAPM return adder of approximately 1.5%. However, the regulated industry
23 CAPM return estimate advocated by Ibbotson Associates would be a reduction to the

^{45/} 2013 SBBi Valuation Yearbook at 89.

1 CAPM return estimate in the range of 3.9% to 4.7%.^{46/} As such, a balanced application
2 of Ibbotson's proposed CAPM build-up methodology would have a medium increase in
3 the CAPM return estimate for a size adjustment, but a significant decrease in the CAPM
4 return estimate to reflect the low-risk nature of the regulated utility industry. Mr.
5 McKenzie's proposed size adjustment is imbalanced and inaccurate, without reflecting
6 the return on equity reduction appropriate with low-risk regulated industries as proposed
7 by Ibbotson.

8 **Q. HOW WOULD MR. MCKENZIE'S CURRENT AND PROJECTED EMPIRICAL**
9 **CAPM RETURN ESTIMATES CHANGE IF A REASONABLE MARKET RISK**
10 **PREMIUM WERE USED?**

11 **A.** Applying a market risk premium estimate of 7.6%, a beta of 0.79 for gas and 0.73 for the
12 combination groups, and using *Blue Chip's* projected risk-free rate of 3.8% will produce
13 an ECAPM return in the range of 9.3% to 9.8%.

14 Also, as shown in Table 10 below, reflecting a complete build-out as
15 recommended by Ibbotson on a basic CAPM return estimate, which includes the risk-free
16 rate, an equity risk premium, a size adjustment and an industry risk premium, Mr.
17 McKenzie's size-adjusted CAPM return estimates would decline from 11.6% and 11.8%
18 down to 09.0% for gas. Similarly, the CAPM return for the combination group would
19 decline from 10.6% and 10.9% down to 7.6%.

^{46/} *Duff & Phelps 2015 Valuation Handbook* at 5-20. Morningstar discontinued the *Ibbotson SBBI Valuation Yearbook* after the 2013 edition. Duff & Phelps has since continued the publication in its 2015 *Valuation Handbook*.

TABLE 7

Buildup Return Estimates

<u>Description</u>	<u>Current</u>		<u>Projected</u>	
	<u>Gas</u>	<u>Combination</u>	<u>Gas</u>	<u>Combination</u>
Risk-Free Rate ¹	2.9%	2.9%	4.3%	4.3%
Equity RP ¹	8.6%	8.6%	7.2%	7.2%
Avg Size RP ¹	1.4%	0.8%	1.4%	0.8%
Industry RP ²	<u>(3.9%)</u>	<u>(4.7%)</u>	<u>(3.9%)</u>	<u>(4.7%)</u>
	9.0%	7.6%	9.0%	7.6%

Sources:
¹Avista/301, Schedule AMM-7 and Schedule AMM-8.
²Duff & Phelps 2015 Valuation Handbook at 5-20.

1 **Q. PLEASE DESCRIBE MR. MCKENZIE'S UTILITY RISK PREMIUM**
 2 **ANALYSIS.**

3 **A.** Mr. McKenzie's utility bond yield versus authorized return on common equity risk
 4 premium is shown in his Schedule AMM-9. As shown on page 3 of this exhibit, Mr.
 5 McKenzie estimated an annual equity risk premium by subtracting Moody's A-utility
 6 bond yield from the gas utility regulatory commission authorized return on common
 7 equity over the period 1980 through 2014. Based on this analysis, Mr. McKenzie
 8 estimates an average indicated equity risk premium over current utility bond yields of
 9 3.34%.

10 Mr. McKenzie then adjusts this average equity risk premium using a regression
 11 analysis based on an expectation that there is an ongoing inverse relationship between
 12 interest rates and equity risk premiums. Based on this regression analysis, Mr. McKenzie
 13 increases his equity risk premium from 3.34%, up to 5.45% and 4.43% relative to current

1 and projected rated bond yields.^{47/} He then adds this inflated equity risk premium to the
2 current and projected BBB rated utility bond yield of 4.62% to 6.84%, to produce a return
3 on equity of 10.07% to 11.27%.^{48/}

4 Mr. McKenzie's risk premium analysis is overstated because of a highly suspect
5 and inflated projected Baa bond yield of 6.84%, and his development of risk premiums is
6 based on the flawed and incomplete assumption that equity risk premiums change by
7 only changes in interest rates. Academic literature is clear that equity risk premiums
8 change based on differences in the perceived risk of equity securities versus bond
9 securities, not simply caused by only changes in nominal interest rates.

10 **Q. DO YOU HAVE ANY COMMENTS CONCERNING MR. MCKENZIE'S**
11 **PROJECTED UTILITY YIELD OF 6.84%?**

12 **A.** Yes. Mr. McKenzie uses a projected AA utility bond yield for the period 2015 through
13 2019 in the range of 6.08% to 6.10%, with a midpoint of 6.09%. He then adds a current
14 yield spread for BBB-rated and AA-rated utility bond yields of 0.75 to produce his
15 projected yield of 6.84%. This projected yield is stale and incomplete.^{49/} Current AA
16 utility bond yields are approximately 4.3% as of September 11, 2015. Mr. McKenzie's
17 projected increase to AA utility bond yields does not reflect consensus market outlooks.

18 **Q. WHY IS MR. MCKENZIE'S USE OF A SIMPLE INVERSE RELATIONSHIP**
19 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS**
20 **UNREASONABLE?**

21 **A.** Mr. McKenzie's belief that there is a simple inverse relationship between equity risk
22 premiums and interest rates is unsupported by academic research. While academic
23 studies have shown that, in the past, there has been an inverse relationship with these

^{47/} Schedule AMM-9.

^{48/} *Id.*

^{49/} McKenzie Direct Testimony at 38.

1 variables, researchers have found that the relationship changes over time and is
2 influenced by changes in perception of the risk of bond investments relative to equity
3 investments, and not simply changes to interest rates.^{50/}

4 In the 1980s, equity risk premiums were inversely related to interest rates, but that
5 was likely attributable to the interest rate volatility that existed at that time. Interest rate
6 volatility currently is much lower than it was in the 1980s.^{51/} As such, when interest rates
7 were more volatile, the relative perception of bond investment risk increased relative to
8 the investment risk of equities. This changing investment risk perception caused changes
9 in equity risk premiums.

10 In today's marketplace, interest rate variability is not as extreme as it was during
11 the 1980s. Nevertheless, changes in the perceived risk of bond investments relative to
12 equity investments still drive changes in equity premiums. However, a relative
13 investment risk differential cannot be measured simply by observing nominal interest
14 rates. Changes in nominal interest rates are highly influenced by changes to inflation
15 outlooks, which also change equity return expectations. As such, the relevant factor
16 needed to explain changes in equity risk premiums is the relative changes to the risk of
17 equity versus debt securities investments, not simply changes to interest rates.

18 Importantly, Mr. McKenzie's analysis ignores investment risk differentials. He
19 bases his adjustment to the equity risk premium exclusively on changes in nominal
20 interest rates. This is a flawed methodology and does not produce accurate or reliable
21 risk premium return on equity estimates. His results should be rejected by the Board.

^{50/} "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

^{51/} Morningstar SBBI, 2009 Yearbook at 95-96.

1 **Q. CAN MR. MCKENZIE'S RISK PREMIUM ANALYSES BASED ON**
2 **PROJECTED YIELDS BE MODIFIED TO PRODUCE MORE REASONABLE**
3 **RESULTS?**

4 **A.** Yes. By eliminating the inverse relationship adjustment to the equity risk premium of
5 3.34% and relying on Mr. McKenzie's current BBB rated utility yield of 4.62%, this will
6 result in a return on equity risk premium of 7.96% (3.34% + 4.62%), rounded to 8.0%.

7 The median equity premium based on the last 10 years is approximately 4.70%.
8 Using current observable Baa bond yields of 4.62%, this would imply a common equity
9 return of 9.32%. I believe this more reasonably captures a fair equity risk premium
10 estimate using the data in Mr. McKenzie's study.

11 **Q. DID MR. MCKENZIE ALSO PERFORM A TRADITIONAL CAPM ANALYSIS?**

12 **A.** Yes. Mr. McKenzie performed a traditional CAPM analysis that relied on the same
13 market risk premiums of 8.6% and 7.2%, the same current and projected risk-free rates of
14 2.9% and 4.3%, respectively, and the same average *Value Line* betas that he used in his
15 current and projected ECAPM analyses. His unadjusted traditional CAPM range is 9.7%
16 to 10.0%. His size-adjusted range is 11.1% to 11.4%.

17 **Q. ARE MR. MCKENZIE'S CURRENT AND PROJECTED TRADITIONAL CAPM**
18 **ANALYSES REASONABLE?**

19 **A.** No. Mr. McKenzie's traditional CAPM analyses share some of same flaws as his
20 ECAPM analyses. As described above, his market return outlook of 11.5% and resulting
21 market risk premiums are not reasonable. Further, Mr. McKenzie's proposal to adjust the
22 traditional CAPM result upward applying a size adjustment is inappropriate and should
23 be rejected for the same reasons discussed in response to his ECAPM.

1 **Q. HOW WOULD MR. MCKENZIE'S CURRENT AND PROJECTED**
2 **TRADITIONAL CAPM RETURN ESTIMATES CHANGE IF A REASONABLE**
3 **MARKET RISK PREMIUM WERE USED?**

4 **A.** Applying a market risk premium of 7.6%, an average *Value Line* beta of 0.79 for gas and
5 0.73 for the combination group, and using *Blue Chip's* projected risk-free rate of 3.8%
6 will produce a CAPM return in the range of 9.3% to 9.8%.

7 Also, reflecting a complete build-out as recommended by Ibbotson on a basic
8 CAPM return estimate, which includes the beta-adjusted CAPM return, a size adjustment
9 and an industry risk premium, Mr. McKenzie's size-adjusted CAPM return estimates
10 would decline from 11.1% and 11.4% to 8.7% and 9.0% for his gas group and from
11 10.0% and 10.4% to 6.0% and 6.3%, respectively.

12 **Q. PLEASE DESCRIBE MR. MCKENZIE'S EXPECTED EARNINGS ANALYSIS.**

13 **A.** Mr. McKenzie's expected earnings analysis is based on *Value Line's* projected earned
14 return on book equities for his proxy groups, adjusted to reflect average year equity
15 returns. Based on a review of projected earnings over the next three to five years, Mr.
16 McKenzie estimates a return on equity for Avista in the range of 10.7% to 11.3%
17 (Schedule AMM-12).

18 **Q. IS THE EXPECTED EARNINGS ANALYSIS A REASONABLE METHOD FOR**
19 **ESTIMATING A FAIR RETURN ON EQUITY FOR AVISTA?**

20 **A.** No. An expected earnings analysis does not measure the return an investor requires in
21 order to make an investment. Rather, it measures the earned return on book equity that
22 companies have experienced in the past or are projected to achieve in the future. The
23 returns investors require in order to assume the risk of an investment are measured from
24 prevailing stock market prices. An expected earnings analysis measures an accounting
25 return on book equity. Therefore, such a return is not developed from observable market

1 data. A return estimate using an expected earnings analysis can differ significantly from
2 the return investors currently require. Therefore, Mr. McKenzie's expected earnings
3 approach should be rejected.

4 **Q. DO YOU HAVE ANY ADDITIONAL COMMENTS IN REGARDS TO MR.**
5 **MCKENZIE'S RETURN ESTIMATES?**

6 **A.** Yes. Mr. McKenzie also performed a DCF model on a non-utility proxy group, which he
7 found to be a reasonable risk proxy for Avista. I disagree. I find his non-utility group
8 unreasonable.

9 **Q. WHY DO YOU CONSIDER MR. MCKENZIE'S NON-UTILITY GROUP**
10 **UNREASONABLE?**

11 **A.** The companies included in Mr. McKenzie's non-utility proxy group are subject to risks
12 that are different from those affecting Avista's utility operations. As noted by the major
13 credit rating agencies, the utility industry has relatively low risk in comparison with the
14 market. Indeed, the regulatory process itself provides an effective mechanism to mitigate
15 some of the market risks influencing the U.S. economy. Therefore, using
16 Mr. McKenzie's non-utility proxy group, which is much riskier than the utility industry,
17 will produce an unreliable and inflated return on equity for a low-risk utility like Avista.
18 Therefore, the Commission should disregard the results of Mr. McKenzie's non-utility
19 group DCF.

20 **Q. CAN YOU PROVIDE AN EXAMPLE OF WHY MR. MCKENZIE'S**
21 **NON-UTILITY GROUP IS NOT A REASONABLE RISK PROXY GROUP FOR**
22 **AVISTA?**

23 **A.** Yes. One criterion that Mr. McKenzie uses to select a comparable risk non-utility group
24 in order to estimate Avista's return on equity, is to compare Avista's bond rating to that

1 of the non-regulated group.⁵² While this is a reasonable method of estimating and
2 identifying comparable proxy groups within the industry, doing it across industries is not
3 as straightforward and not as reliable. For example, if bond rating alone would
4 adequately help to identify comparable risk companies across industries, then there
5 should not be any observable clear differences in the investment cost for securities that
6 had different bond ratings. However, the industry or circumstances behind the security
7 have a material role in the market's assessment of a fair compensation. For example,
8 U.S. Treasury bonds have a bond rating from Moody's of "AAA." The current yield on a
9 U.S. Treasury bond is around 2.9%. In comparison, corporate bonds with a "AAA"
10 rating currently have costs of approximately 3.9%.⁵³ A corporate bond is approximately
11 1.00% more expensive than a Treasury bond, despite the fact that it has the same bond
12 rating.

13 While "AAA" corporate bonds and U.S. Treasuries have comparable bond
14 ratings, the risk differential is significant largely because of the operating risk differences
15 between the securities. The U.S. government has virtually minimal default risk on its
16 bond issuances, whereas even a "AAA" rated corporate bond has measurable default risk.
17 Similarly, regulated utility operations and the ability to adjust prices to cost of service
18 provide far less default risk than that of non-regulated companies. A regulated company
19 simply has a franchise to a monopolistic service territory, the ability to set prices based
20 on reasonable and prudent costs, and minimal competition. In significant contrast, a non-
21 regulated entity does not have a franchised or monopolistic customer base, must price its
22 services consistent with what the market will permit, and has far more uncertainty of

^{52/} Avista/300, McKenzie/Page 60, Table No. 8.

^{53/} *Blue Chip Financial Forecasts*, September 1, 2015 at 2.

1 selling products that produce cash flows that support financial obligations. Therefore, the
2 DCF results produced by Mr. McKenzie's non-utility group should be rejected.

3 **Q. WHAT IS YOUR CONCLUSION REGARDING THE APPROPRIATE RETURN**
4 **ON EQUITY FOR AVISTA BASED ON YOUR ANALYSIS?**

5 **A.** My analysis supports a reasonable range of Avista's current cost of market equity to be
6 from 8.9% to 9.6%, with a midpoint of approximately 9.3%. Applied to Avista's rate
7 base, and using the Company's capital structure, this will produce a return which meets
8 the Hope and Bluefield standards, and support Avista's credit metrics.

9 The Commission should reject Mr. McKenzie's recommended cost of common
10 equity range for the reasons outlined above, primarily that his analysis has artificially
11 inflated Avista's cost of equity through unreasonable adjustments.

12 **IV. OTHER REVENUE REQUIREMENT ADJUSTMENTS**

13 **Q. PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

14 **A.** In this section of my testimony I will discuss the following adjustments to Avista's
15 revenue requirement:

- 16 ➤ Elimination of the Prepaid Pension Asset from rate base,
- 17 ➤ Recognition of bonus depreciation,
- 18 ➤ Revising the expected return on pension trust fund assets, and
- 19 ➤ Correcting Avista's proposed depreciation expense that was based on incorrect
20 depreciation rates.

21 **IV.A. Prepaid Pension Asset**

22 **Q. HAS AVISTA REQUESTED A RETURN ON ITS PREPAID PENSION ASSET?**

23 **A.** Yes. Avista included a \$5.655 million prepaid pension asset in its rate base.

1 **Q. HAS THE COMMISSION RECENTLY MADE A FINDING WITH REGARD TO**
2 **THE INCLUSION OF PREPAID PENSION ASSETS IN RATE BASE?**

3 **A.** Yes. In Order No. 15-226, entered August 3, 2015, in Docket No. UM 1633 the Public
4 Utility Commission Of Oregon (“Commission”) rejected the Joint Utilities’^{54/} proposal to
5 include prepaid assets in rate base. In its order the Commission, citing FAS 87,^{55/} stated:

6 We affirm our long-standing policy of allowing a utility to recover its pension
7 contributions through FAS 87 expense and reject the Joint Utilities' proposal
8 to include their current prepaid pension assets in rate base. We find no
9 systemic change to the dynamics of FAS 87 expense that justifies a change to
10 our current pension cost policy. Moreover, the Joint Utilities' proposal is
11 inequitable and would be problematic to implement.
12

13 **Q. WHAT IS YOUR PROPOSAL?**

14 **A.** In compliance with the Commission’s order, I propose an adjustment to reduce Avista’s
15 rate base by \$5.655 million. This adjustment reduces Avista’s revenue requirement by
16 \$0.6 million, based on my recommended rate of return. (Exhibit NWIGU-CUB/120).

17 **IV.B. Bonus Depreciation**

18 **Q. HAS AVISTA RECOGNIZED BONUS DEPRECIATION IN ITS 2015 AND 2016**
19 **CALCULATIONS?**

20 **A.** No. On December 16, 2014 Congress passed the Tax Increase Prevention Act. This
21 legislation extended bonus depreciation, which allows for additional depreciation of 50%
22 on new purchased and installed equipment. However, this was a retroactive extension
23 that, except for aircraft related equipment, only covered the 2014 calendar year.

24 **Q. DO YOU ANTICIPATE ANOTHER EXTENSION OF BONUS DEPRECIATION**
25 **FOR 2015 AND 2016?**

26 **A.** Yes. Except for the period 2005 through 2007, bonus depreciation has been in effect

^{54/} PacifiCorp, dba Pacific Power; Portland General Electric Company; Northwest Natural Gas Company, dba NW Natural; Avista Corporation, dba Avista Utilities; and Cascade Natural Gas Corporation.

^{55/} Statement of Financial Accounting Standards No 87 - Employers’ Accounting For Pensions

1 from September 2001. In addition, on July 21, 2015 the Senate Finance Committee
2 (“Committee”) voted, by an overwhelming majority of 23 to 3, to extend more than 50
3 expired tax provisions, including 50% bonus depreciation.

4 **Q. ARE YOU PROPOSING AN ADJUSTMENT TO INCLUDE BONUS**
5 **DEPRECIATION IN THIS CASE?**

6 **A.** Yes. I believe the history of this provision and the broad support reflected by the
7 Committee’s recent vote indicate that it is extremely likely that 50% bonus depreciation
8 will be renewed for 2015 and 2016.

9 **Q. HOW WILL THE RECOGNITION OF BONUS DEPRECIATION AFFECT**
10 **AVISTA’S REVENUE REQUIREMENT?**

11 **A.** Recognition of bonus depreciation should affect Avista’s revenue requirement in two
12 ways. First, it will increase the amount of accumulated deferred federal income tax
13 (“ADFIT”) included as a reduction to the rate base. Second it will reduce Avista’s state
14 income tax expense.

15 **Q. HOW WILL BONUS DEPRECIATION AFFECT AVISTA’S RATE BASE?**

16 **A.** Recognition of bonus depreciation will increase the tax depreciation available to Avista
17 for 2015 and 2016 plant additions. This additional tax depreciation will result in
18 additional ADFIT. By increasing the tax depreciation rates Avista applied to its 2015 and
19 2016 plant additions, to include the 50% bonus depreciation, I calculated an additional
20 \$7.5 million reduction to rate base for ADFIT. This additional ADFIT reduces revenue
21 requirement by \$0.8 million.

22 **Q. HOW WILL BONUS DEPRECIATION AFFECT AVISTA’S STATE INCOME**
23 **TAX EXPENSE RATE BASE?**

24 **A.** Additional tax depreciation in 2016, as a result of the bonus depreciation deduction, will
25 reduce the Avista corporate taxable income and therefore, the apportioned taxable income

1 to Oregon. This lower taxable income in 2016 results in lower Oregon state income
2 taxes.

3 In addition, due to Avista not recognizing bonus depreciation in 2015, the higher
4 Oregon apportioned taxable income and state income tax allowed a higher utilization of
5 the Oregon Business Energy Tax Credit (“BETC”). As a result of using higher BETCs in
6 2015, only a small amount of credit was available for 2016. However, if bonus
7 depreciation is recognized in 2015, the Avista corporate taxable income and the
8 apportioned taxable income to Oregon will also be reduced in 2015. This lower taxable
9 income in 2015 will result in lower Oregon state income tax and less utilization of the
10 BETCs in 2015. Therefore, additional BETCs will be available to further reduce Oregon
11 state income tax in 2016. (Exhibit NWIGU-CUB/121).

12 **Q. WHAT EFFECT WILL THE REDUCTION IN OREGON STATE INCOME TAX**
13 **HAVE ON AVISTA’S REVENUE REQUIREMENT?**

14 A. The reduction in state income tax will reduce Avista’s revenue requirement by \$1.22
15 million. The total reduction in Avista’s claimed revenue deficiency related to the
16 recognition of an extension in bonus depreciation is \$2.02 million.

17 **IV.B. Pension Expense**

18 **Q. HAS AVISTA CHANGED THE RETURN IT EXPECTS TO EARN ON ITS**
19 **PENSION TRUST FUND ASSETS?**

20 A. Yes. As indicated in its confidential response to information request NWIGU/CUB 2.7,
21 Avista’s filed cost of service in this case reflects a [REDACTED]
22 [REDACTED].

1 **Q. IS AVISTA PLANNING TO UPDATE ITS CASE TO REFLECT NEW PENSION**
2 **CALCULATIONS?**

3 **A.** Yes. Based on updates available in May 2015, Avista is reflecting a [REDACTED]
4 [REDACTED].

5 **Q. WHAT ARE THE RECENT ACTUAL RETURNS ON PENSION ASSETS**
6 **EXPERIENCED BY AVISTA?**

7 **A.** As shown in its actuarial valuation reporting for January 2015, Avista's actual return on
8 the fair value of pension assets was [REDACTED].

9 **Q. WHAT JUSTIFICATION HAS AVISTA PROVIDED FOR ITS CHANGE IN THE**
10 **EXPECTED RETURN ON PENSION ASSETS?**

11 **A.** Avista stated that the change was due to [REDACTED]
12 [REDACTED]
13 [REDACTED].

14 **Q. DO YOU BELIEVE AVISTA HAS JUSTIFIED THE CHANGE IN THE**
15 **EXPECTED RETURN ON PENSION ASSETS?**

16 **A.** No. I do not believe Avista has justified the [REDACTED]
17 [REDACTED] in the expected return on pension
18 assets.

19 **Q. ARE YOU PROPOSING AN ADJUSTMENT TO AVISTA'S PENSION**
20 **EXPENSE?**

21 **A.** Yes. I propose to eliminate the effect of the [REDACTED]
22 [REDACTED] in the determination of revenue requirement in this case. Based on Oregon's share
23 of the operation and maintenance expense associated with pension cost, my proposal
24 [REDACTED] \$0.34 million.

1 **IV.D. Depreciation Expense**

2 **Q. IS THERE AN ERROR IN THE DEPRECIATION RATES AVISTA USED IN**
3 **THE CALCULATION OF ITS DEPRECIATION EXPENSE?**

4 **A.** Yes. As identified in response to the request for information Staff-152, Avista failed to
5 use the correct depreciation rates in the determination of certain accounts in developing
6 its test year depreciation expense. This error unjustifiably increased its revenue
7 requirement.

8 **Q. WHAT IS THE REVENUE REQUIREMENT ADJUSTMENT ASSOCIATED**
9 **WITH CORRECTING THIS ERROR?**

10 **A.** Correctly updating the depreciation rates reduces revenue requirement by \$0.28 million.

11 **Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?**

12 **A.** Yes, it does.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/101

QUALIFICATIONS OF MICHAEL P. GORMAN

October 16, 2015

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q. PLEASE STATE YOUR OCCUPATION.**

5 **A.** I am a consultant in the field of public utility regulation and a Managing Principal with
6 Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory consultants.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**
8 **EXPERIENCE.**

9 **A.** In 1983 I received a Bachelors of Science Degree in Electrical Engineering from
10 Southern Illinois University, and in 1986, I received a Masters Degree in Business
11 Administration with a concentration in Finance from the University of Illinois at
12 Springfield. I have also completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce
14 Commission (“ICC”). In this position, I performed a variety of analyses for both formal
15 and informal investigations before the ICC, including: marginal cost of energy, central
16 dispatch, avoided cost of energy, annual system production costs, and working capital. In
17 October of 1986, I was promoted to the position of Senior Analyst. In this position, I
18 assumed the additional responsibilities of technical leader on projects, and my areas of
19 responsibility were expanded to include utility financial modeling and financial analyses.

20 In 1987, I was promoted to Director of the Financial Analysis Department. In this
21 position, I was responsible for all financial analyses conducted by the Staff. Among
22 other things, I conducted analyses and sponsored testimony before the ICC on rate of
23 return, financial integrity, financial modeling and related issues. I also supervised the
24 development of all Staff analyses and testimony on these same issues. In addition, I

1 supervised the Staff's review and recommendations to the Commission concerning utility
2 plans to issue debt and equity securities.

3 In August of 1989, I accepted a position with Merrill-Lynch as a financial
4 consultant. After receiving all required securities licenses, I worked with individual
5 investors and small businesses in evaluating and selecting investments suitable to their
6 requirements.

7 In September of 1990, I accepted a position with Drazen-Brubaker & Associates,
8 Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was formed. It
9 includes most of the former DBA principals and Staff. Since 1990, I have performed
10 various analyses and sponsored testimony on cost of capital, cost/benefits of utility
11 mergers and acquisitions, utility reorganizations, level of operating expenses and rate
12 base, cost of service studies, and analyses relating to industrial jobs and economic
13 development. I also participated in a study used to revise the financial policy for the
14 municipal utility in Kansas City, Kansas.

15 At BAI, I also have extensive experience working with large energy users to
16 distribute and critically evaluate responses to requests for proposals ("RFPs") for electric,
17 steam, and gas energy supply from competitive energy suppliers. These analyses include
18 the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle
19 unit feasibility studies, and the evaluation of third-party asset/supply management
20 agreements. I have participated in rate cases on rate design and class cost of service for
21 electric, natural gas, water and wastewater utilities. I have also analyzed commodity
22 pricing indices and forward pricing methods for third party supply agreements, and have
23 also conducted regional electric market price forecasts.

1 In addition to our main office in St. Louis, the firm also has branch offices in
2 Phoenix, Arizona and Corpus Christi, Texas.

3 **Q. HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

4 **A.** Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of service
5 and other issues before the Federal Energy Regulatory Commission and numerous state
6 regulatory commissions including: Arkansas, Arizona, California, Colorado, Delaware,
7 Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Missouri,
8 Montana, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma,
9 Oregon, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West
10 Virginia, Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta
11 and Nova Scotia, Canada. I have also sponsored testimony before the Board of Public
12 Utilities in Kansas City, Kansas; presented rate setting position reports to the regulatory
13 board of the municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf
14 of industrial customers; and negotiated rate disputes for industrial customers of the
15 Municipal Electric Authority of Georgia in the LaGrange, Georgia district.

16 **Q. PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
17 **ORGANIZATIONS TO WHICH YOU BELONG.**

18 **A.** I earned the designation of Chartered Financial Analyst (“CFA”) from the CFA Institute.
19 The CFA charter was awarded after successfully completing three examinations which
20 covered the subject areas of financial accounting, economics, fixed income and equity
21 valuation and professional and ethical conduct. I am a member of the CFA Institute’s
22 Financial Analyst Society.

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/102

RATE OF RETURN

October 16, 2015

Avista Corporation

Rate of Return (December 31, 2016)

<u>Line</u>	<u>Description</u>	<u>Weight</u> (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)
1	Total Debt	51.5%	5.53%	2.85%
2	Common Equity	<u>48.5%</u>	9.35%	<u>4.53%</u>
3	Total	100.0%		7.38%

Source:
Exhibit NWIGU-CUB/102, Gorman/2.

Avista Corporation

Historical Capital Structure (FERC)

<u>Line</u>	<u>Description</u>	<u>12/31/2010</u>	<u>12/31/2011</u>	<u>12/31/2012</u>	<u>12/31/2013</u>	<u>12/31/2014</u>	<u>3/31/2015</u>	<u>6/30/2015</u>
1	Long-Term Debt	\$ 1,147,904	\$ 1,223,393	\$ 1,303,095	\$ 1,343,260	\$ 1,403,425	\$ 1,403,466	\$ 1,403,508
2	Common Equity	<u>1,121,458</u>	<u>1,180,064</u>	<u>1,252,777</u>	<u>1,292,445</u>	<u>1,475,782</u>	<u>1,499,532</u>	<u>1,506,995</u>
3	Total	\$ 2,269,362	\$ 2,403,457	\$ 2,555,872	\$ 2,635,705	\$ 2,879,207	\$ 2,902,998	\$ 2,910,503
4	Long-Term Debt	50.58%	50.90%	50.98%	50.96%	48.74%	48.35%	48.22%
5	Common Equity	<u>49.42%</u>	<u>49.10%</u>	<u>49.02%</u>	<u>49.04%</u>	<u>51.26%</u>	<u>51.65%</u>	<u>51.78%</u>
6	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<u>Non Utility Investments</u>								
7	Non Utility Property	\$ 5,403	\$ 6,022	\$ 5,537	\$ 5,439	\$ 5,289	\$ 5,289	\$ 5,289
8	Less: Accum. Depr.	\$ (908)	\$ (915)	\$ (922)	\$ (921)	\$ (195)	\$ (196)	\$ (197)
9	Inv. In Subs	\$ 77,734	\$ 71,971	\$ 118,714	\$ 112,232	\$ 148,256	\$ 150,608	\$ 151,715
10	Other Investments	<u>\$ 21,347</u>	<u>\$ 18,889</u>	<u>\$ 16,439</u>	<u>\$ 13,981</u>	<u>\$ 11,525</u>	<u>\$ 10,911</u>	<u>\$ 31,888</u>
11	Total	\$ 103,576	\$ 95,967	\$ 139,768	\$ 130,731	\$ 164,875	\$ 166,612	\$ 188,695
<u>Adjusted Capital Structure</u>								
12	Long-Term Debt	\$ 1,147,904	\$ 1,223,393	\$ 1,303,095	\$ 1,343,260	\$ 1,403,425	\$ 1,403,466	\$ 1,403,508
13	Common Equity	<u>\$ 1,017,882</u>	<u>\$ 1,084,097</u>	<u>\$ 1,113,009</u>	<u>\$ 1,161,714</u>	<u>\$ 1,310,907</u>	<u>\$ 1,332,920</u>	<u>\$ 1,318,300</u>
14	Total	\$ 2,165,786	\$ 2,307,490	\$ 2,416,104	\$ 2,504,974	\$ 2,714,332	\$ 2,736,386	\$ 2,721,808
15	Long-Term Debt	53.00%	53.02%	53.93%	53.62%	51.70%	51.29%	51.57%
16	Common Equity	<u>47.00%</u>	<u>46.98%</u>	<u>46.07%</u>	<u>46.38%</u>	<u>48.30%</u>	<u>48.71%</u>	<u>48.43%</u>
17	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source:

FERC Form 1, as of December 31, 2010-2014 and FERC Form 3-Q as of March and July, 2015, Page 110.

Avista Corporation

Historical Capital Structure (SEC)

<u>Line</u>	<u>Description</u>	<u>12/31/2010</u>	<u>12/31/2011</u>	<u>12/31/2012</u>	<u>12/31/2013</u>	<u>12/31/2014</u>	<u>3/31/2015</u>	<u>6/30/2015</u>
1	Long-Term Debt	\$ 1,153,404	\$ 1,228,847	\$ 1,280,286	\$ 1,324,330	\$ 1,550,033	\$ 1,550,225	\$ 1,549,594
2	Common Equity	<u>1,129,510</u>	<u>1,191,512</u>	<u>1,283,835</u>	<u>1,324,086</u>	<u>1,491,130</u>	<u>1,514,401</u>	<u>1,521,402</u>
3	Total	\$ 2,282,914	\$ 2,420,359	\$ 2,564,121	\$ 2,648,416	\$ 3,041,163	\$ 3,064,626	\$ 3,070,996
4	Long-Term Debt	50.52%	50.77%	49.93%	50.00%	50.97%	50.58%	50.46%
5	Common Equity	<u>49.48%</u>	<u>49.23%</u>	<u>50.07%</u>	<u>50.00%</u>	<u>49.03%</u>	<u>49.42%</u>	<u>49.54%</u>
6	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<u>Non Utility Investments (None Reported)</u>								
7	Non Utility Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Less: Accum. Depr.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Inv. In Subs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Other Investments	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
11	Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Goodwill	\$ 25,935	\$ 39,045	\$ 75,959	\$ 76,257	\$ 57,976	\$ 57,976	\$ 57,672
<u>Adjusted Capital Structure</u>								
13	Long-Term Debt	\$ 1,153,404	\$ 1,228,847	\$ 1,280,286	\$ 1,324,330	\$ 1,550,033	\$ 1,550,225	\$ 1,549,594
14	Common Equity	<u>\$ 1,103,575</u>	<u>\$ 1,152,467</u>	<u>\$ 1,207,876</u>	<u>\$ 1,247,829</u>	<u>\$ 1,433,154</u>	<u>\$ 1,456,425</u>	<u>\$ 1,463,730</u>
15	Total	\$ 2,256,979	\$ 2,381,314	\$ 2,488,162	\$ 2,572,159	\$ 2,983,187	\$ 3,006,650	\$ 3,013,324
16	Long-Term Debt	51.10%	51.60%	51.46%	51.49%	51.96%	51.56%	51.42%
17	Common Equity	<u>48.90%</u>	<u>48.40%</u>	<u>48.54%</u>	<u>48.51%</u>	<u>48.04%</u>	<u>48.44%</u>	<u>48.58%</u>
18	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source:

SEC 10K as of December 31, 2010-2014, and SEC 10Q as of March 31, and July 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

**EXHIBIT NWIGU-CUB/103
ADJUSTED CAPITAL STRUCTURE**

October 16, 2015

Avista Corporation

Adjusted Capital Structure

<u>Line</u>	<u>Description</u>	<u>Proposed Amount (\$000)¹ (1)</u>	<u>Adjustments (2)</u>	<u>Adjusted Amount (3)</u>	<u>Weight (4)</u>
1	Total Debt	1,573,000		\$ 1,573,000	54.4%
2	Common Equity	<u>1,563,927</u>	\$ (246,367)	<u>\$ 1,317,560</u>	<u>45.6%</u>
3	Total	\$ 3,136,927		\$ 2,890,560	100.0%

Non Utility Investments²

4	Non Utility Property		\$ 5,289		
5	Less: Accum Provision for Nonutility Depr.		\$ (197)		
6	Investment In Subsidiary Companies		\$ 151,715		
7	Other Investments		<u>\$ 31,888</u>		
8	Total		\$ 188,695		
9	Goodwill		\$ 57,672		
10	Total Adjustments		\$ 246,367		

Sources:

¹ Exhibit/201, Thies/Page 2.

² June 30, 2015 FERC Form 3-Q, Page 110 and 10K.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/104

PROXY GROUP

October 16, 2015

Avista Corporation

Proxy Group (Gas)

<u>Line</u>	<u>Company</u>	<u>Credit Ratings</u> ¹		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>SNL</u> ¹ (3)	<u>Value Line</u> ² (4)
1	Atmos Energy Corporation	A-	A2	53.8%	55.7%
2	Laclede Group, Inc. (The)	A-	Baa2	41.4%	44.9%
3	New Jersey Resources Corporation	N/A	N/A	50.9%	61.8%
4	NiSource Inc.	BBB+	Ba1	38.2%	43.1%
5	Northwest Natural Gas Company	A+	A3	46.1%	55.2%
6	Piedmont Natural Gas Company, Inc.	A	A2	42.4%	47.9%
7	South Jersey Industries, Inc.	BBB+	N/A	42.6%	52.0%
8	Southwest Gas Corporation	BBB+	A3	47.0%	47.6%
9	WGL Holdings, Inc.	A+	A3	51.4%	63.8%
10	Average	A-	Baa1	46.0%	52.4%
11	Avista Corporation	BBB ³	Baa1 ³		50.0% ⁴

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, September 4, 2015.

³ Avista/300, McKenzie/Page 22.

⁴ Avista/300, McKenzie/Page 24.

Avista Corporation

Proxy Group (Combination)

<u>Line</u>	<u>Company</u>	<u>Credit Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>SNL¹</u> (3)	<u>Value Line²</u> (4)
1	Alliant Energy Corporation	A-	A3	44.8%	47.5%
2	Ameren Corporation	BBB+	Baa1	48.6%	51.7%
3	Avista Corporation	BBB	Baa1	47.3%	49.0%
4	CenterPoint Energy, Inc.	A-	Baa1	33.9%	36.2%
5	CMS Energy Corporation	BBB+	Baa2	29.5%	31.0%
6	Consolidated Edison, Inc.	A-	A3	49.2%	52.0%
7	Dominion Resources, Inc.	A-	Baa2	30.5%	34.6%
8	DTE Energy Company	BBB+	A3	48.0%	50.0%
9	Duke Energy Corporation	A-	A3	49.0%	52.3%
10	Empire District Electric Company	BBB	Baa1	48.0%	49.4%
11	Entergy Corporation	BBB	Baa3	41.1%	43.8%
12	Eversource Energy	A	Baa1	50.0%	53.2%
13	MGE Energy, Inc.	N/A	N/A	61.9%	62.5%
14	NorthWestern Corporation	BBB	A3	43.0%	46.6%
15	PG&E Corporation	BBB	Baa1	49.6%	50.7%
16	Public Service Enterprise Group Incorporat	BBB+	Baa2	57.1%	59.6%
17	SCANA Corporation	BBB+	Baa3	43.0%	47.4%
18	Sempra Energy	BBB+	Baa1	42.8%	48.2%
19	Vectren Corporation	A-	N/A	48.1%	53.3%
20	Xcel Energy Inc.	A-	A3	44.4%	47.0%
21	Average	BBB+	Baa1	45.5%	48.3%
22	Avista Corporation	BBB³	Baa1³		50.0%⁴

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

³ Avista/300, McKenzie/Page 22.

⁴ Avista/300, McKenzie/Page 24.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/105

CONSENSUS ANALYSTS' GROWTH RATES

October 16, 2015

Avista Corporation

Consensus Analysts' Growth Rates (Gas)

<u>Line</u>	<u>Company</u>	<u>Zacks</u>		<u>SNL</u>		<u>Reuters</u>		<u>Average of Growth Rates</u> (7)
		<u>Estimated Growth %¹</u> (1)	<u>Number of Estimates</u> (2)	<u>Estimated Growth %²</u> (3)	<u>Number of Estimates</u> (4)	<u>Estimated Growth %³</u> (5)	<u>Number of Estimates</u> (6)	
1	Atmos Energy Corporation	7.00%	N/A	6.80%	2	7.00%	1	6.93%
2	Laclede Group, Inc. (The)	4.90%	N/A	4.70%	2	4.42%	5	4.67%
3	New Jersey Resources Corporation	6.00%	N/A	6.00%	1	6.00%	1	6.00%
4	NiSource Inc.	5.30%	N/A	2.40%	2	-2.27%	3	3.85%
5	Northwest Natural Gas Company	4.00%	N/A	4.00%	1	NA	NA	4.00%
6	Piedmont Natural Gas Company, Inc.	5.00%	N/A	5.80%	3	6.00%	1	5.60%
7	South Jersey Industries, Inc.	NA	N/A	N/A	N/A	NA	NA	N/A
8	Southwest Gas Corporation	5.00%	N/A	4.00%	1	NA	NA	4.50%
9	WGL Holdings, Inc.	6.00%	N/A	6.90%	2	7.00%	1	6.63%
10	Average	5.40%	N/A	5.08%	2	6.08%	2	5.27%

Sources:

¹ Zacks, <http://www.zacks.com/>, downloaded on September 15, 2015.

² SNL Interactive, <http://www.snl.com/>, downloaded on September 15, 2015.

³ Reuters, <http://www.reuters.com/>, downloaded on September 15, 2015.

Avista Corporation

Consensus Analysts' Growth Rates (Combination)

<u>Line</u>	<u>Company</u>	<u>Zacks</u>		<u>SNL</u>		<u>Reuters</u>		<u>Average of Growth Rates</u>
		<u>Estimated Growth %¹</u> (1)	<u>Number of Estimates</u> (2)	<u>Estimated Growth %²</u> (3)	<u>Number of Estimates</u> (4)	<u>Estimated Growth %³</u> (5)	<u>Number of Estimates</u> (6)	
1	Alliant Energy Corporation	5.30%	N/A	5.70%	3	5.75%	2	5.58%
2	Ameren Corporation	6.80%	N/A	6.20%	2	6.25%	2	6.42%
3	Avista Corporation	NA	N/A	N/A	N/A	NA	NA	N/A
4	CenterPoint Energy, Inc.	5.30%	N/A	2.60%	3	1.43%	2	3.11%
5	CMS Energy Corporation	6.20%	N/A	6.20%	4	6.76%	4	6.39%
6	Consolidated Edison, Inc.	2.70%	N/A	2.50%	5	2.72%	6	2.64%
7	Dominion Resources, Inc.	6.30%	N/A	6.00%	5	5.54%	6	5.95%
8	DTE Energy Company	5.30%	N/A	5.20%	4	5.08%	5	5.19%
9	Duke Energy Corporation	4.70%	N/A	5.00%	8	4.60%	6	4.77%
10	Empire District Electric Company	5.00%	N/A	5.00%	1	NA	NA	5.00%
11	Energy Corporation	-0.50%	N/A	-2.10%	3	-2.13%	4	N/A
12	Eversource Energy	6.80%	N/A	6.30%	3	6.21%	4	6.44%
13	MGE Energy, Inc.	NA	N/A	N/A	N/A	NA	NA	N/A
14	NorthWestern Corporation	5.00%	N/A	5.00%	2	5.28%	3	5.09%
15	PG&E Corporation	4.90%	N/A	3.40%	3	5.86%	4	4.72%
16	Public Service Enterprise Group Incorporated	3.80%	N/A	4.30%	4	2.36%	4	3.49%
17	SCANA Corporation	4.20%	N/A	5.90%	2	4.30%	2	4.80%
18	Sempra Energy	8.40%	N/A	10.80%	2	8.81%	3	9.34%
19	Vectren Corporation	5.70%	N/A	5.50%	2	5.50%	2	5.57%
20	Xcel Energy Inc.	5.00%	N/A	5.20%	6	4.68%	3	4.96%
21	Average	5.38%	N/A	5.34%	3	5.07%	4	5.26%

Sources:

¹ Zacks, <http://www.zacks.com/>, downloaded on September 15, 2015.

² SNL Interactive, <http://www.snl.com/>, downloaded on September 15, 2015.

³ Reuters, <http://www.reuters.com/>, downloaded on September 15, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/106

**CONSTANT GROWTH DCF MODEL
(CONSENSUS ANALYSTS' GROWTH RATES)**

October 16, 2015

Avista Corporation

Constant Growth DCF Model (Consensus Analysts' Growth Rates) (Gas)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$53.95	6.93%	\$1.56	3.09%	10.03%
2	Laclede Group, Inc. (The)	\$53.02	4.67%	\$1.84	3.63%	8.31%
3	New Jersey Resources Corporation	\$28.31	6.00%	\$0.92	3.44%	9.44%
4	NiSource Inc.	\$22.81	3.85%	\$0.62	2.82%	6.67%
5	Northwest Natural Gas Company	\$43.57	4.00%	\$1.86	4.44%	8.44%
6	Piedmont Natural Gas Company, Inc.	\$37.25	5.60%	\$1.32	3.74%	9.34%
7	South Jersey Industries, Inc.	\$24.68	N/A	\$1.00	N/A	N/A
8	Southwest Gas Corporation	\$54.70	4.50%	\$1.62	3.09%	7.59%
9	WGL Holdings, Inc.	\$55.08	6.63%	\$1.85	3.59%	10.22%
10	Average	\$41.49	5.27%	\$1.40	3.48%	8.76%
11	Median					8.89%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² Exhibit NWIGU-CUB/105, Gorman/1.

³ *The Value Line Investment Survey*, September 4, 2015.

Avista Corporation

Constant Growth DCF Model (Consensus Analysts' Growth Rates) (Combination)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Alliant Energy Corporation	\$59.10	5.58%	\$2.20	3.93%	9.51%
2	Ameren Corporation	\$39.73	6.42%	\$1.64	4.39%	10.81%
3	Avista Corporation	\$31.79	N/A	\$1.32	N/A	N/A
4	CenterPoint Energy, Inc.	\$18.97	3.11%	\$0.99	5.38%	8.49%
5	CMS Energy Corporation	\$33.35	6.39%	\$1.16	3.70%	10.09%
6	Consolidated Edison, Inc.	\$61.89	2.64%	\$2.60	4.31%	6.95%
7	Dominion Resources, Inc.	\$69.96	5.95%	\$2.59	3.92%	9.87%
8	DTE Energy Company	\$77.98	5.19%	\$2.92	3.94%	9.13%
9	Duke Energy Corporation	\$72.91	4.77%	\$3.30	4.74%	9.51%
10	Empire District Electric Company	\$22.39	5.00%	\$1.04	4.88%	9.88%
11	Entergy Corporation	\$69.30	N/A	\$3.32	N/A	N/A
12	Eversource Energy	\$47.87	6.44%	\$1.67	3.71%	10.15%
13	MGE Energy, Inc.	\$39.19	N/A	\$1.18	N/A	N/A
14	NorthWestern Corporation	\$51.83	5.09%	\$1.92	3.89%	8.99%
15	PG&E Corporation	\$50.94	4.72%	\$1.82	3.74%	8.46%
16	Public Service Enterprise Group Incorpora	\$40.74	3.49%	\$1.56	3.96%	7.45%
17	SCANA Corporation	\$53.20	4.80%	\$2.18	4.29%	9.09%
18	Sempra Energy	\$100.23	9.34%	\$2.80	3.05%	12.39%
19	Vectren Corporation	\$40.38	5.57%	\$1.52	3.97%	9.54%
20	Xcel Energy Inc.	\$33.67	4.96%	\$1.28	3.99%	8.95%
21	Average	\$50.77	5.26%	\$1.95	4.11%	9.37%
22	Median					9.51%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² Exhibit NWIGU-CUB/105, Gorman/2.

³ *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/107

PAYOUT RATIOS

October 16, 2015

Avista Corporation

Payout Ratios (Gas)

<u>Line</u>		<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2014</u>	<u>Projected</u>	<u>2014</u>	<u>Projected</u>	<u>2014</u>	<u>Projected</u>
		(1)	(2)	(3)	(4)	(5)	(6)
1	Atmos Energy Corporation	\$1.48	\$1.90	\$2.96	\$3.80	50.00%	50.00%
2	Laclede Group, Inc. (The)	\$1.76	\$2.20	\$2.35	\$4.20	74.89%	52.38%
3	New Jersey Resources Corporation	\$0.86	\$0.98	\$2.10	\$2.00	40.95%	49.00%
4	NiSource Inc.	\$1.02	\$0.80	\$1.67	\$1.40	61.08%	57.14%
5	Northwest Natural Gas Company	\$1.85	\$2.10	\$2.16	\$3.30	85.65%	63.64%
6	Piedmont Natural Gas Company, Inc.	\$1.27	\$1.47	\$1.84	\$2.10	69.02%	70.00%
7	South Jersey Industries, Inc.	\$0.96	\$1.35	\$1.57	\$2.35	61.15%	57.45%
8	Southwest Gas Corporation	\$1.46	\$2.10	\$3.01	\$4.50	48.50%	46.67%
9	WGL Holdings, Inc.	\$1.72	\$1.99	\$2.68	\$3.55	64.18%	56.06%
10	Average	\$1.38	\$1.65	\$2.26	\$3.02	61.71%	55.81%

Source:

The Value Line Investment Survey, September 4, 2015.

Avista Corporation

Payout Ratios (Combination)

<u>Line</u>		<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2014</u>	<u>Projected</u>	<u>2014</u>	<u>Projected</u>	<u>2014</u>	<u>Projected</u>
		(1)	(2)	(3)	(4)	(5)	(6)
1	Alliant Energy Corporation	\$2.04	\$2.85	\$3.48	\$4.50	58.62%	63.33%
2	Ameren Corporation	\$1.61	\$1.95	\$2.40	\$3.50	67.08%	55.71%
3	Avista Corporation	\$1.27	\$1.55	\$1.84	\$2.25	69.02%	68.89%
4	CenterPoint Energy, Inc.	\$0.95	\$1.15	\$1.42	\$1.35	66.90%	85.19%
5	CMS Energy Corporation	\$1.08	\$1.50	\$1.74	\$2.25	62.07%	66.67%
6	Consolidated Edison, Inc.	\$2.52	\$2.90	\$3.62	\$4.50	69.61%	64.44%
7	Dominion Resources, Inc.	\$2.40	\$3.50	\$3.05	\$4.75	78.69%	73.68%
8	DTE Energy Company	\$2.69	\$3.50	\$5.10	\$5.75	52.75%	60.87%
9	Duke Energy Corporation	\$3.15	\$3.80	\$4.13	\$5.25	76.27%	72.38%
10	Empire District Electric Company	\$1.03	\$1.20	\$1.55	\$1.75	66.45%	68.57%
11	Entergy Corporation	\$3.32	\$3.80	\$5.77	\$5.50	57.54%	69.09%
12	Eversource Energy	\$1.57	\$2.10	\$2.58	\$3.75	60.85%	56.00%
13	MGE Energy, Inc.	\$1.11	\$1.35	\$2.32	\$3.15	47.84%	42.86%
14	NorthWestern Corporation	\$1.60	\$2.25	\$2.99	\$3.75	53.51%	60.00%
15	PG&E Corporation	\$1.82	\$2.20	\$3.06	\$4.25	59.48%	51.76%
16	Public Service Enterprise Group Incorporated	\$1.48	\$1.90	\$2.99	\$3.25	49.50%	58.46%
17	SCANA Corporation	\$2.10	\$2.50	\$3.79	\$4.50	55.41%	55.56%
18	Sempra Energy	\$2.64	\$3.60	\$4.63	\$7.25	57.02%	49.66%
19	Vectren Corporation	\$1.46	\$1.80	\$2.02	\$3.25	72.28%	55.38%
20	Xcel Energy Inc.	\$1.20	\$1.60	\$2.03	\$2.50	59.11%	64.00%
21	Average	\$1.85	\$2.35	\$3.03	\$3.85	62.00%	62.13%

Source:

The Value Line Investment Survey, July 31, August 21, and September 18, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

**EXHIBIT NWIGU-CUB/108
SUSTAINABLE GROWTH RATE**

October 16, 2015

Avista Corporation

Sustainable Growth Rate (Gas)

Line		3 to 5 Year Projections										Sustainable Growth Rate
		Dividends	Earnings	Book Value	Book Value	ROE	Adjustment	Adjusted	Payout	Retention	Internal	
		Per Share	Per Share	Per Share	Growth		Factor	ROE	Ratio	Rate	Growth Rate	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Atmos Energy Corporation	\$1.90	\$3.80	\$36.65	3.58%	10.37%	1.02	10.55%	50.00%	50.00%	5.28%	8.02%
2	Laclede Group, Inc. (The)	\$2.20	\$4.20	\$48.10	6.61%	8.73%	1.03	9.01%	52.38%	47.62%	4.29%	4.72%
3	New Jersey Resources Corporation	\$0.98	\$2.00	\$16.25	7.22%	12.31%	1.03	12.74%	49.00%	51.00%	6.50%	6.77%
4	NiSource Inc.	\$0.80	\$1.40	\$24.90	4.97%	5.62%	1.02	5.76%	57.14%	42.86%	2.47%	2.56%
5	Northwest Natural Gas Company	\$2.10	\$3.30	\$33.85	3.78%	9.75%	1.02	9.93%	63.64%	36.36%	3.61%	3.90%
6	Piedmont Natural Gas Company, Inc.	\$1.47	\$2.10	\$20.30	3.86%	10.34%	1.02	10.54%	70.00%	30.00%	3.16%	3.82%
7	South Jersey Industries, Inc.	\$1.35	\$2.35	\$18.40	6.15%	12.77%	1.03	13.15%	57.45%	42.55%	5.60%	7.33%
8	Southwest Gas Corporation	\$2.10	\$4.50	\$39.40	4.28%	11.42%	1.02	11.66%	46.67%	53.33%	6.22%	7.82%
9	WGL Holdings, Inc.	\$1.99	\$3.55	\$29.80	4.35%	11.91%	1.02	12.17%	56.06%	43.94%	5.35%	5.35%
10	Average	\$1.65	\$3.02	\$29.74	4.98%	10.36%	1.02	10.61%	55.81%	44.19%	4.72%	5.59%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, September 4, 2015.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/5) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

Avista Corporation

Sustainable Growth Rate (Gas)

<u>Line</u>	<u>Company</u>	<u>13-Week</u>	<u>2014</u>	<u>Market</u>	<u>Common Shares</u>		<u>Growth</u>	<u>S Factor</u> ³	<u>V Factor</u> ⁴	<u>S * V</u>
		<u>Average</u>	<u>Book Value</u>	<u>to Book</u>	<u>Outstanding (in Millions)</u> ²					
		<u>Stock Price</u> ¹	<u>Per Share</u> ²	<u>Ratio</u>	<u>2014</u>	<u>3-5 Years</u>	<u>(6)</u>	<u>(7)</u>	<u>(8)</u>	<u>(9)</u>
		(1)	(2)	(3)	(4)	(5)				
1	Atmos Energy Corporation	\$53.95	\$30.74	1.75	100.39	120.00	3.63%	6.38%	43.02%	2.74%
2	Laclede Group, Inc. (The)	\$53.02	\$34.93	1.52	43.18	45.00	0.83%	1.26%	34.12%	0.43%
3	New Jersey Resources Corporation	\$28.31	\$11.47	2.47	84.20	85.00	0.19%	0.47%	59.49%	0.28%
4	NiSource Inc.	\$22.81	\$19.54	1.17	316.04	325.00	0.56%	0.65%	14.35%	0.09%
5	Northwest Natural Gas Company	\$43.57	\$28.12	1.55	27.28	28.00	0.52%	0.81%	35.46%	0.29%
6	Piedmont Natural Gas Company, Inc.	\$37.25	\$16.80	2.22	77.88	80.00	0.54%	1.19%	54.91%	0.66%
7	South Jersey Industries, Inc.	\$24.68	\$13.65	1.81	68.33	76.00	2.15%	3.89%	44.69%	1.74%
8	Southwest Gas Corporation	\$54.70	\$31.95	1.71	46.52	52.00	2.25%	3.86%	41.59%	1.60%
9	WGL Holdings, Inc.	\$55.08	\$24.08	2.29	51.76	50.00	-0.69%	-1.58%	56.28%	-0.89%
10	Average	\$41.49	\$23.48	1.83	90.62	95.67	1.33%	2.31%	42.66%	0.98%

Sources and Notes:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, September 4, 2015.

³ Expected Growth in the Number of Shares, Column (3) * Column (6).

⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Avista Corporation

Sustainable Growth Rate (Combination)

Line		3 to 5 Year Projections										Sustainable
		Dividends	Earnings	Book Value	Book Value		Adjustment	Adjusted	Payout	Retention	Internal	Growth
		Per Share	Per Share	Per Share	Growth	ROE	Factor	ROE	Ratio	Rate	Growth Rate	Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1	Alliant Energy Corporation	\$2.85	\$4.50	\$34.65	2.19%	12.99%	1.01	13.13%	63.33%	36.67%	4.81%	5.46%
2	Ameren Corporation	\$1.95	\$3.50	\$34.00	4.21%	10.29%	1.02	10.51%	55.71%	44.29%	4.65%	4.91%
3	Avista Corporation	\$1.55	\$2.25	\$27.25	2.71%	8.26%	1.01	8.37%	68.89%	31.11%	2.60%	2.79%
4	CenterPoint Energy, Inc.	\$1.15	\$1.35	\$11.75	2.08%	11.49%	1.01	11.61%	85.19%	14.81%	1.72%	2.48%
5	CMS Energy Corporation	\$1.50	\$2.25	\$17.75	5.88%	12.68%	1.03	13.04%	66.67%	33.33%	4.35%	5.40%
6	Consolidated Edison, Inc.	\$2.90	\$4.50	\$50.75	3.40%	8.87%	1.02	9.02%	64.44%	35.56%	3.21%	3.21%
7	Dominion Resources, Inc.	\$3.50	\$4.75	\$28.00	7.24%	16.96%	1.03	17.56%	73.68%	26.32%	4.62%	8.39%
8	DTE Energy Company	\$3.50	\$5.75	\$58.50	4.45%	9.83%	1.02	10.04%	60.87%	39.13%	3.93%	5.01%
9	Duke Energy Corporation	\$3.80	\$5.25	\$64.25	2.13%	8.17%	1.01	8.26%	72.38%	27.62%	2.28%	2.28%
10	Empire District Electric Company	\$1.20	\$1.75	\$20.25	2.36%	8.64%	1.01	8.74%	68.57%	31.43%	2.75%	3.18%
11	Entergy Corporation	\$3.80	\$5.50	\$63.75	2.69%	8.63%	1.01	8.74%	69.09%	30.91%	2.70%	2.71%
12	Eversource Energy	\$2.10	\$3.75	\$38.25	3.98%	9.80%	1.02	10.00%	56.00%	44.00%	4.40%	4.56%
13	MGE Energy, Inc.	\$1.35	\$3.15	\$25.00	5.62%	12.60%	1.03	12.94%	42.86%	57.14%	7.40%	8.20%
14	NorthWestern Corporation	\$2.25	\$3.75	\$38.00	3.82%	9.87%	1.02	10.05%	60.00%	40.00%	4.02%	4.32%
15	PG&E Corporation	\$2.20	\$4.25	\$42.50	5.13%	10.00%	1.03	10.25%	51.76%	48.24%	4.94%	5.91%
16	Public Service Enterprise Group Incorpc	\$1.90	\$3.25	\$31.25	5.34%	10.40%	1.03	10.67%	58.46%	41.54%	4.43%	4.44%
17	SCANA Corporation	\$2.50	\$4.50	\$45.50	5.42%	9.89%	1.03	10.15%	55.56%	44.44%	4.51%	4.96%
18	Sempra Energy	\$3.60	\$7.25	\$59.00	5.11%	12.29%	1.02	12.59%	49.66%	50.34%	6.34%	6.83%
19	Vectren Corporation	\$1.80	\$3.25	\$21.85	2.35%	14.87%	1.01	15.05%	55.38%	44.62%	6.71%	7.84%
20	Xcel Energy Inc.	\$1.60	\$2.50	\$24.75	4.15%	10.10%	1.02	10.31%	64.00%	36.00%	3.71%	3.98%
21	Average	\$2.35	\$3.85	\$36.85	4.01%	10.83%	1.02	11.05%	62.13%	37.87%	4.20%	4.84%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/5) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

Avista Corporation

Sustainable Growth Rate (Combination)

Line	Company	13-Week	2014	Market	Common Shares		Growth	S Factor ³	V Factor ⁴	S * V
		Average	Book Value	to Book	Outstanding (in Millions) ²					
		Stock Price ¹	Per Share ²	Ratio	2014	3-5 Years	(6)	(7)	(8)	(9)
		(1)	(2)	(3)	(4)	(5)				
1	Alliant Energy Corporation	\$59.10	\$31.09	1.90	110.94	115.00	0.72%	1.37%	47.40%	0.65%
2	Ameren Corporation	\$39.73	\$27.67	1.44	242.63	250.00	0.60%	0.86%	30.36%	0.26%
3	Avista Corporation	\$31.79	\$23.84	1.33	62.24	64.00	0.56%	0.75%	25.02%	0.19%
4	CenterPoint Energy, Inc.	\$18.97	\$10.60	1.79	429.00	450.00	0.96%	1.72%	44.11%	0.76%
5	CMS Energy Corporation	\$33.35	\$13.34	2.50	275.20	285.00	0.70%	1.76%	60.00%	1.05%
6	Consolidated Edison, Inc.	\$61.89	\$42.94	1.44	292.88	293.00	0.01%	0.01%	30.61%	0.00%
7	Dominion Resources, Inc.	\$69.96	\$19.74	3.54	585.30	630.00	1.48%	5.26%	71.79%	3.77%
8	DTE Energy Company	\$77.98	\$47.05	1.66	176.99	192.00	1.64%	2.72%	39.66%	1.08%
9	Duke Energy Corporation	\$72.91	\$57.81	1.26	707.00	692.00	-0.43%	-0.54%	20.71%	-0.11%
10	Empire District Electric Company	\$22.39	\$18.02	1.24	43.48	47.50	1.78%	2.22%	19.53%	0.43%
11	Entergy Corporation	\$69.30	\$55.83	1.24	179.24	179.50	0.03%	0.04%	19.44%	0.01%
12	Eversource Energy	\$47.87	\$31.47	1.52	316.98	322.00	0.31%	0.48%	34.25%	0.16%
13	MGE Energy, Inc.	\$39.19	\$19.02	2.06	34.67	36.00	0.76%	1.56%	51.46%	0.80%
14	NorthWestern Corporation	\$51.83	\$31.50	1.65	46.91	48.00	0.46%	0.76%	39.22%	0.30%
15	PG&E Corporation	\$50.94	\$33.09	1.54	475.91	520.00	1.79%	2.75%	35.04%	0.96%
16	Public Service Enterprise Group Incorporated	\$40.74	\$24.09	1.69	505.84	506.00	0.01%	0.01%	40.87%	0.00%
17	SCANA Corporation	\$53.20	\$34.95	1.52	142.70	149.00	0.87%	1.32%	34.30%	0.45%
18	Sempra Energy	\$100.23	\$45.98	2.18	246.33	251.50	0.42%	0.91%	54.13%	0.49%
19	Vectren Corporation	\$40.38	\$19.45	2.08	82.60	87.00	1.04%	2.17%	51.83%	1.12%
20	Xcel Energy Inc.	\$33.67	\$20.20	1.67	505.73	516.00	0.40%	0.67%	40.01%	0.27%
21	Average	\$50.77	\$30.38	1.76	273.13	281.68	0.77%	1.44%	39.49%	0.67%

Sources and Notes:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

³ Expected Growth in the Number of Shares, Column (3) * Column (6).

⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/109

**CONSTANT GROWTH DCF MODEL
(SUSTAINABLE GROWTH RATE)**

October 16, 2015

Avista Corporation

Constant Growth DCF Model (Sustainable Growth Rate) (Gas)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price</u> ¹ (1)	<u>Sustainable Growth</u> ² (2)	<u>Annualized Dividend</u> ³ (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Atmos Energy Corporation	\$53.95	8.02%	\$1.56	3.12%	11.14%
2	Laclede Group, Inc. (The)	\$53.02	4.72%	\$1.84	3.63%	8.35%
3	New Jersey Resources Corporation	\$28.31	6.77%	\$0.92	3.47%	10.24%
4	NiSource Inc.	\$22.81	2.56%	\$0.62	2.79%	5.35%
5	Northwest Natural Gas Company	\$43.57	3.90%	\$1.86	4.44%	8.33%
6	Piedmont Natural Gas Company, Inc.	\$37.25	3.82%	\$1.32	3.68%	7.50%
7	South Jersey Industries, Inc.	\$24.68	7.33%	\$1.00	4.37%	11.70%
8	Southwest Gas Corporation	\$54.70	7.82%	\$1.62	3.19%	11.02%
9	WGL Holdings, Inc.	\$55.08	5.35%	\$1.85	3.54%	8.89%
10	Average	\$41.49	5.59%	\$1.40	3.58%	9.17%
11	Median					8.89%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² Exhibit NWIGU-CUB/108, Gorman/1.

³ *The Value Line Investment Survey*, September 4, 2015.

Avista Corporation

Constant Growth DCF Model (Sustainable Growth Rate) (Combination)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Alliant Energy Corporation	\$59.10	5.46%	\$2.20	3.93%	9.39%
2	Ameren Corporation	\$39.73	4.91%	\$1.64	4.33%	9.24%
3	Avista Corporation	\$31.79	2.79%	\$1.32	4.27%	7.06%
4	CenterPoint Energy, Inc.	\$18.97	2.48%	\$0.99	5.35%	7.83%
5	CMS Energy Corporation	\$33.35	5.40%	\$1.16	3.67%	9.07%
6	Consolidated Edison, Inc.	\$61.89	3.21%	\$2.60	4.34%	7.55%
7	Dominion Resources, Inc.	\$69.96	8.39%	\$2.59	4.01%	12.41%
8	DTE Energy Company	\$77.98	5.01%	\$2.92	3.93%	8.94%
9	Duke Energy Corporation	\$72.91	2.28%	\$3.30	4.63%	6.91%
10	Empire District Electric Company	\$22.39	3.18%	\$1.04	4.79%	7.97%
11	Entergy Corporation	\$69.30	2.71%	\$3.32	4.92%	7.63%
12	Eversource Energy	\$47.87	4.56%	\$1.67	3.65%	8.21%
13	MGE Energy, Inc.	\$39.19	8.20%	\$1.18	3.26%	11.46%
14	NorthWestern Corporation	\$51.83	4.32%	\$1.92	3.86%	8.18%
15	PG&E Corporation	\$50.94	5.91%	\$1.82	3.78%	9.69%
16	Public Service Enterprise Group Incorporated	\$40.74	4.44%	\$1.56	4.00%	8.44%
17	SCANA Corporation	\$53.20	4.96%	\$2.18	4.30%	9.27%
18	Sempra Energy	\$100.23	6.83%	\$2.80	2.98%	9.82%
19	Vectren Corporation	\$40.38	7.84%	\$1.52	4.06%	11.90%
20	Xcel Energy Inc.	\$33.67	3.98%	\$1.28	3.95%	7.93%
21	Average	\$50.77	4.84%	\$1.95	4.10%	8.94%
22	Median					8.69%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² Exhibit NWIGU-CUB/108, Gorman/3.

³ *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

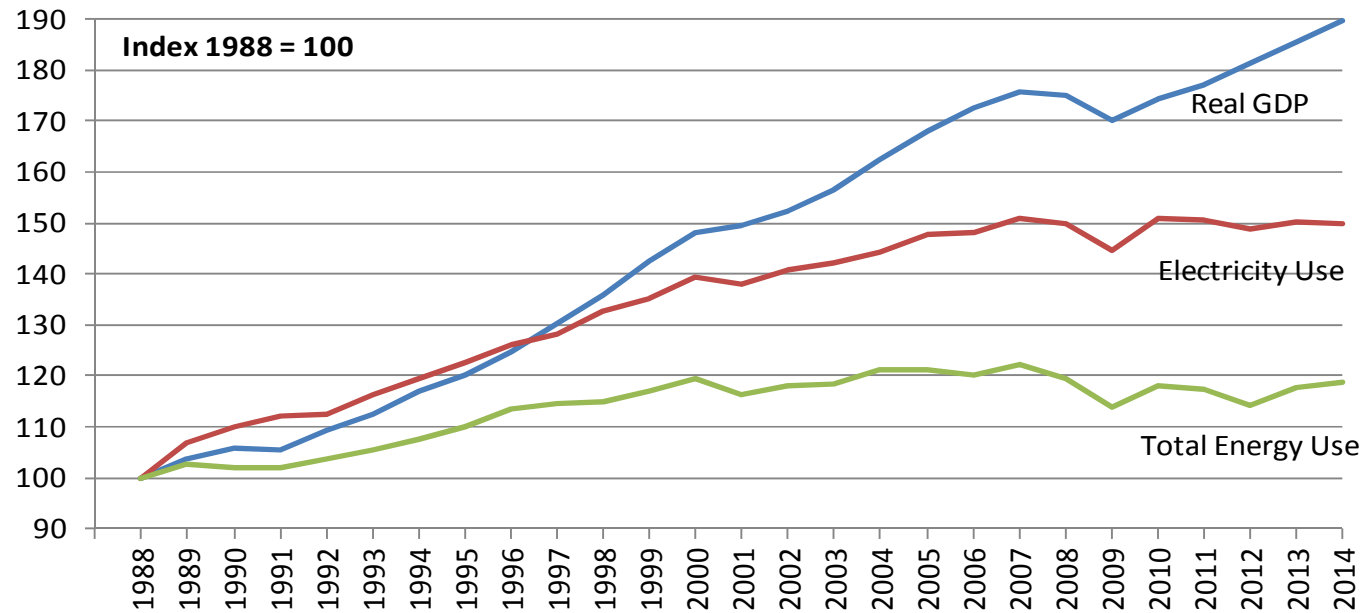
EXHIBIT NWIGU-CUB/110

**ELECTRICITY SALES ARE LINKED TO
U.S. ECONOMIC GROWTH**

October 16, 2015

Avista Corporation

Electricity Sales Are Linked to U.S. Economic Growth



Note:

1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:

U.S. Department of Energy, Energy Information Administration.
Edison Electric Institute, <http://www.eei.org>.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

**EXHIBIT NWIGU-CUB/111
MULTI-STAGE GROWTH DCF MODEL**

October 16, 2015

Avista Corporation

Multi-Stage Growth DCF Model (Gas)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG</u>	<u>Annualized</u>	<u>First Stage</u>	<u>Second Stage Growth</u>					<u>Third Stage</u>	<u>Multi-Stage</u>
		<u>Stock Price¹</u>	<u>Dividend²</u>	<u>Growth³</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Growth⁴</u>	<u>Growth DCF</u>
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Atmos Energy Corporation	\$53.95	\$1.56	6.93%	6.54%	6.16%	5.77%	5.38%	4.99%	4.60%	8.11%
2	Laclede Group, Inc. (The)	\$53.02	\$1.84	4.67%	4.66%	4.65%	4.64%	4.62%	4.61%	4.60%	8.24%
3	New Jersey Resources Corporation	\$28.31	\$0.92	6.00%	5.77%	5.53%	5.30%	5.07%	4.83%	4.60%	8.31%
4	NiSource Inc.	\$22.81	\$0.62	3.85%	3.98%	4.10%	4.23%	4.35%	4.48%	4.60%	7.29%
5	Northwest Natural Gas Company	\$43.57	\$1.86	4.00%	4.10%	4.20%	4.30%	4.40%	4.50%	4.60%	8.90%
6	Piedmont Natural Gas Company, Inc.	\$37.25	\$1.32	5.60%	5.43%	5.27%	5.10%	4.93%	4.77%	4.60%	8.55%
7	South Jersey Industries, Inc.	\$24.68	\$1.00	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
8	Southwest Gas Corporation	\$54.70	\$1.62	4.50%	4.52%	4.53%	4.55%	4.57%	4.58%	4.60%	7.67%
9	WGL Holdings, Inc.	\$55.08	\$1.85	6.63%	6.29%	5.96%	5.62%	5.28%	4.94%	4.60%	8.60%
10	Average	\$41.49	\$1.40	5.27%	5.16%	5.05%	4.94%	4.82%	4.71%	4.60%	8.21%
11	Median										8.28%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, September 4, 2015.

³ Exhibit NWIGU-CUB/105, Gorman/1.

⁴ *Blue Chip Financial Forecasts*, June 1, 2015 at 14.

Avista Corporation

Multi-Stage Growth DCF Model (Combination)

Line	Company	13-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
		Stock Price ¹	Dividend ²	Growth ³	Year 6	Year 7	Year 8	Year 9	Year 10	Growth ⁴	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Alliant Energy Corporation	\$59.10	\$2.20	5.58%	5.42%	5.26%	5.09%	4.93%	4.76%	4.60%	8.74%
2	Ameren Corporation	\$39.73	\$1.64	6.42%	6.11%	5.81%	5.51%	5.21%	4.90%	4.60%	9.43%
3	Avista Corporation	\$31.79	\$1.32	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
4	CenterPoint Energy, Inc.	\$18.97	\$0.99	3.11%	3.36%	3.61%	3.86%	4.10%	4.35%	4.60%	9.58%
5	CMS Energy Corporation	\$33.35	\$1.16	6.39%	6.09%	5.79%	5.49%	5.20%	4.90%	4.60%	8.67%
6	Consolidated Edison, Inc.	\$61.89	\$2.60	2.64%	2.97%	3.29%	3.62%	3.95%	4.27%	4.60%	8.48%
7	Dominion Resources, Inc.	\$69.96	\$2.59	5.95%	5.72%	5.50%	5.27%	5.05%	4.82%	4.60%	8.81%
8	DTE Energy Company	\$77.98	\$2.92	5.19%	5.09%	5.00%	4.90%	4.80%	4.70%	4.60%	8.66%
9	Duke Energy Corporation	\$72.91	\$3.30	4.77%	4.74%	4.71%	4.68%	4.66%	4.63%	4.60%	9.38%
10	Empire District Electric Compa	\$22.39	\$1.04	5.00%	4.93%	4.87%	4.80%	4.73%	4.67%	4.60%	9.58%
11	Energy Corporation	\$69.30	\$3.32	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
12	Eversource Energy	\$47.87	\$1.67	6.44%	6.13%	5.82%	5.52%	5.21%	4.91%	4.60%	8.69%
13	MGE Energy, Inc.	\$39.19	\$1.18	N/A	N/A	N/A	N/A	N/A	N/A	4.60%	N/A
14	NorthWestern Corporation	\$51.83	\$1.92	5.09%	5.01%	4.93%	4.85%	4.76%	4.68%	4.60%	8.60%
15	PG&E Corporation	\$50.94	\$1.82	4.72%	4.70%	4.68%	4.66%	4.64%	4.62%	4.60%	8.36%
16	Public Service Enterprise Grou	\$40.74	\$1.56	3.49%	3.67%	3.86%	4.04%	4.23%	4.41%	4.60%	8.33%
17	SCANA Corporation	\$53.20	\$2.18	4.80%	4.77%	4.73%	4.70%	4.67%	4.63%	4.60%	8.94%
18	Sempra Energy	\$100.23	\$2.80	9.34%	8.55%	7.76%	6.97%	6.18%	5.39%	4.60%	8.53%
19	Vectren Corporation	\$40.38	\$1.52	5.57%	5.41%	5.24%	5.08%	4.92%	4.76%	4.60%	8.78%
20	Xcel Energy Inc.	\$33.67	\$1.28	4.96%	4.90%	4.84%	4.78%	4.72%	4.66%	4.60%	8.67%
21	Average	\$50.77	\$1.95	5.26%	5.15%	5.04%	4.93%	4.82%	4.71%	4.60%	8.84%
22	Median										8.69%

Sources:

¹ SNL Financial, Downloaded on September 15, 2015.

² *The Value Line Investment Survey*, July 31, August 21, and September 18, 2015.

³ Exhibit NWIGU-CUB/105, Gorman/2.

⁴ *Blue Chip Financial Forecasts*, June 1, 2015 at 14.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

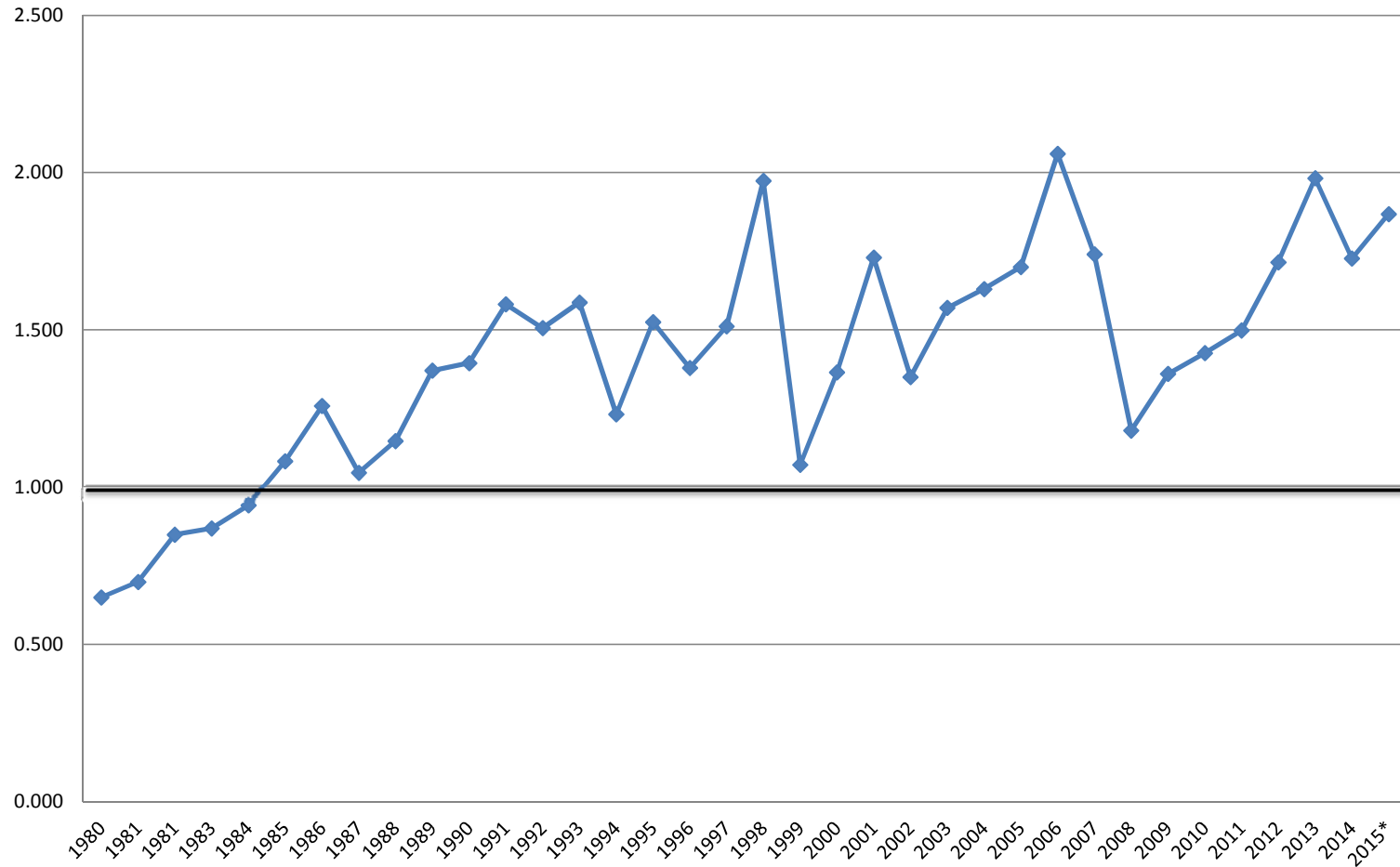
EXHIBIT NWIGU-CUB/112

COMMON STOCK MARKET/BOOK RATIO

October 16, 2015

Avista Corporation

Common Stock Market/Book Ratio



* through June 2015.

Note: 8 of the 30 utilities were not updated through June 2015 and are excluded.

Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2015: AUS Utility Reports, various dates.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
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AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
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EXHIBIT NWIGU-CUB/113

EQUITY RISK PREMIUM – TREASURY BOND

October 16, 2015

Avista Corporation

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	7.80%	5.66%		
2	1987	12.74%	8.58%	4.16%		
3	1988	12.85%	8.96%	3.89%		
4	1989	12.88%	8.45%	4.43%		
5	1990	12.67%	8.61%	4.06%	4.44%	
6	1991	12.46%	8.14%	4.32%	4.17%	
7	1992	12.01%	7.67%	4.34%	4.21%	
8	1993	11.35%	6.60%	4.75%	4.38%	
9	1994	11.35%	7.37%	3.98%	4.29%	
10	1995	11.43%	6.88%	4.55%	4.39%	4.42%
11	1996	11.19%	6.70%	4.49%	4.42%	4.30%
12	1997	11.29%	6.61%	4.68%	4.49%	4.35%
13	1998	11.51%	5.58%	5.93%	4.73%	4.55%
14	1999	10.66%	5.87%	4.79%	4.89%	4.59%
15	2000	11.39%	5.94%	5.45%	5.07%	4.73%
16	2001	10.95%	5.49%	5.46%	5.26%	4.84%
17	2002	11.03%	5.43%	5.60%	5.45%	4.97%
18	2003	10.99%	4.96%	6.03%	5.47%	5.10%
19	2004	10.59%	5.05%	5.54%	5.62%	5.25%
20	2005	10.46%	4.65%	5.81%	5.69%	5.38%
21	2006	10.43%	4.99%	5.44%	5.69%	5.47%
22	2007	10.24%	4.83%	5.41%	5.65%	5.55%
23	2008	10.37%	4.28%	6.09%	5.66%	5.56%
24	2009	10.19%	4.07%	6.12%	5.77%	5.69%
25	2010	10.08%	4.25%	5.83%	5.78%	5.73%
26	2011	9.92%	3.91%	6.01%	5.89%	5.79%
27	2012	9.94%	2.92%	7.02%	6.21%	5.93%
28	2013	9.68%	3.45%	6.23%	6.24%	5.95%
29	2014	9.78%	3.34%	6.44%	6.31%	6.04%
30	2015 ³	9.45%	2.55%	6.90%	6.52%	6.15%
31	Average	11.11%	5.80%	5.31%	5.26%	5.25%
32	Minimum				4.17%	4.30%
	Maximum				6.52%	6.15%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 and Jun. 2015.

² St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.
The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

³ The data includes the period Jan. - Jun. 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/114

EQUITY RISK PREMIUM – UTILITY BOND

October 16, 2015

Avista Corporation

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Gas Returns¹</u> (1)	<u>Average "A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.46%	9.58%	3.88%		
2	1987	12.74%	10.10%	2.64%		
3	1988	12.85%	10.49%	2.36%		
4	1989	12.88%	9.77%	3.11%		
5	1990	12.67%	9.86%	2.81%	2.96%	
6	1991	12.46%	9.36%	3.10%	2.80%	
7	1992	12.01%	8.69%	3.32%	2.94%	
8	1993	11.35%	7.59%	3.76%	3.22%	
9	1994	11.35%	8.31%	3.04%	3.21%	
10	1995	11.43%	7.89%	3.54%	3.35%	3.16%
11	1996	11.19%	7.75%	3.44%	3.42%	3.11%
12	1997	11.29%	7.60%	3.69%	3.49%	3.22%
13	1998	11.51%	7.04%	4.47%	3.64%	3.43%
14	1999	10.66%	7.62%	3.04%	3.64%	3.42%
15	2000	11.39%	8.24%	3.15%	3.56%	3.45%
16	2001	10.95%	7.76%	3.19%	3.51%	3.46%
17	2002	11.03%	7.37%	3.66%	3.50%	3.50%
18	2003	10.99%	6.58%	4.41%	3.49%	3.56%
19	2004	10.59%	6.16%	4.43%	3.77%	3.70%
20	2005	10.46%	5.65%	4.81%	4.10%	3.83%
21	2006	10.43%	6.07%	4.36%	4.33%	3.92%
22	2007	10.24%	6.07%	4.17%	4.44%	3.97%
23	2008	10.37%	6.53%	3.84%	4.32%	3.91%
24	2009	10.19%	6.04%	4.15%	4.27%	4.02%
25	2010	10.08%	5.46%	4.62%	4.23%	4.16%
26	2011	9.92%	5.04%	4.88%	4.33%	4.33%
27	2012	9.94%	4.13%	5.81%	4.66%	4.55%
28	2013	9.68%	4.48%	5.20%	4.93%	4.63%
29	2014	9.78%	4.28%	5.50%	5.20%	4.73%
30	2015 ³	9.45%	3.88%	5.57%	5.39%	4.81%
31	Average	11.11%	7.18%	3.93%	3.87%	3.85%
32	Minimum				2.80%	3.11%
33	Maximum				5.39%	4.81%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 and Jun. 2015.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2014 were obtained from <http://credittrends.moody.com/>.

³ The data includes the period Jan. - Jun. 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

**EXHIBIT NWIGU-CUB/115
BOND YIELD SPREADS**

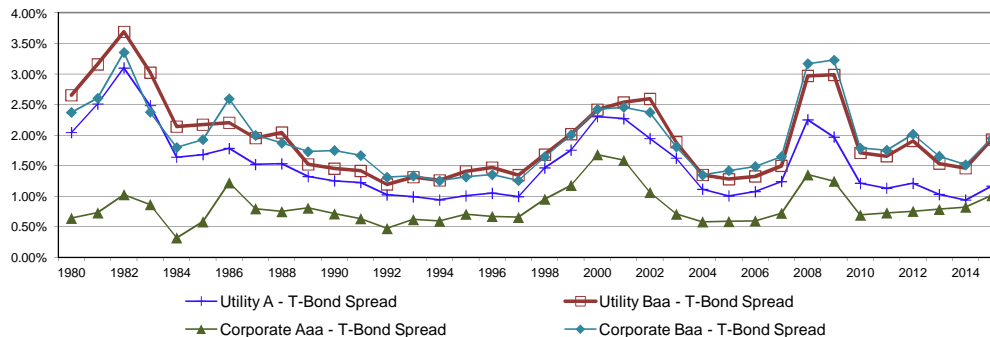
October 16, 2015

Avista Corporation

Bond Yield Spreads

Line	Year	Public Utility Bond					Corporate Bond				Utility to Corporate	
		T-Bond Yield ¹ (1)	A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ¹ (6)	Baa ¹ (7)	Aaa -T-Bond Spread (8)	Baa -T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.29%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.99%	6.07%	6.32%	1.08%	1.32%	5.59%	6.48%	0.60%	1.49%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.72%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.56%	1.13%	1.65%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.91%	3.67%	4.94%	0.75%	2.01%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.85%	0.82%	1.51%	-0.06%	0.11%
36	2015 ³	2.72%	3.88%	4.65%	1.16%	1.93%	3.73%	4.67%	1.01%	1.95%	-0.02%	0.15%
37	Average	6.83%	8.35%	8.78%	1.52%	1.95%	7.66%	8.76%	0.83%	1.93%	0.02%	0.69%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2013 were obtained from <http://credittrends.moodys.com/>.

³ The data includes the period Jan. - Jun. 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
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Request for a General Rate Revision.)
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EXHIBIT NWIGU-CUB/116

TREASURY AND UTILITY BOND YIELDS

October 16, 2015

Avista Corporation

Treasury and Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	09/11/15	2.95%	4.38%	5.38%
2	09/04/15	2.89%	4.32%	5.36%
3	08/28/15	2.92%	4.34%	5.39%
4	08/21/15	2.74%	4.15%	5.19%
5	08/14/15	2.84%	4.23%	5.20%
6	08/07/15	2.83%	4.20%	5.11%
7	07/31/15	2.92%	4.30%	5.16%
8	07/24/15	2.96%	4.31%	5.15%
9	07/17/15	3.08%	4.41%	5.23%
10	07/10/15	3.20%	4.54%	5.34%
11	07/02/15	3.19%	4.51%	5.27%
12	06/26/15	3.25%	4.54%	5.30%
13	06/19/15	3.05%	4.34%	5.08%
14	Average	2.99%	4.35%	5.24%
15	Spread To Treasury		1.36%	2.25%

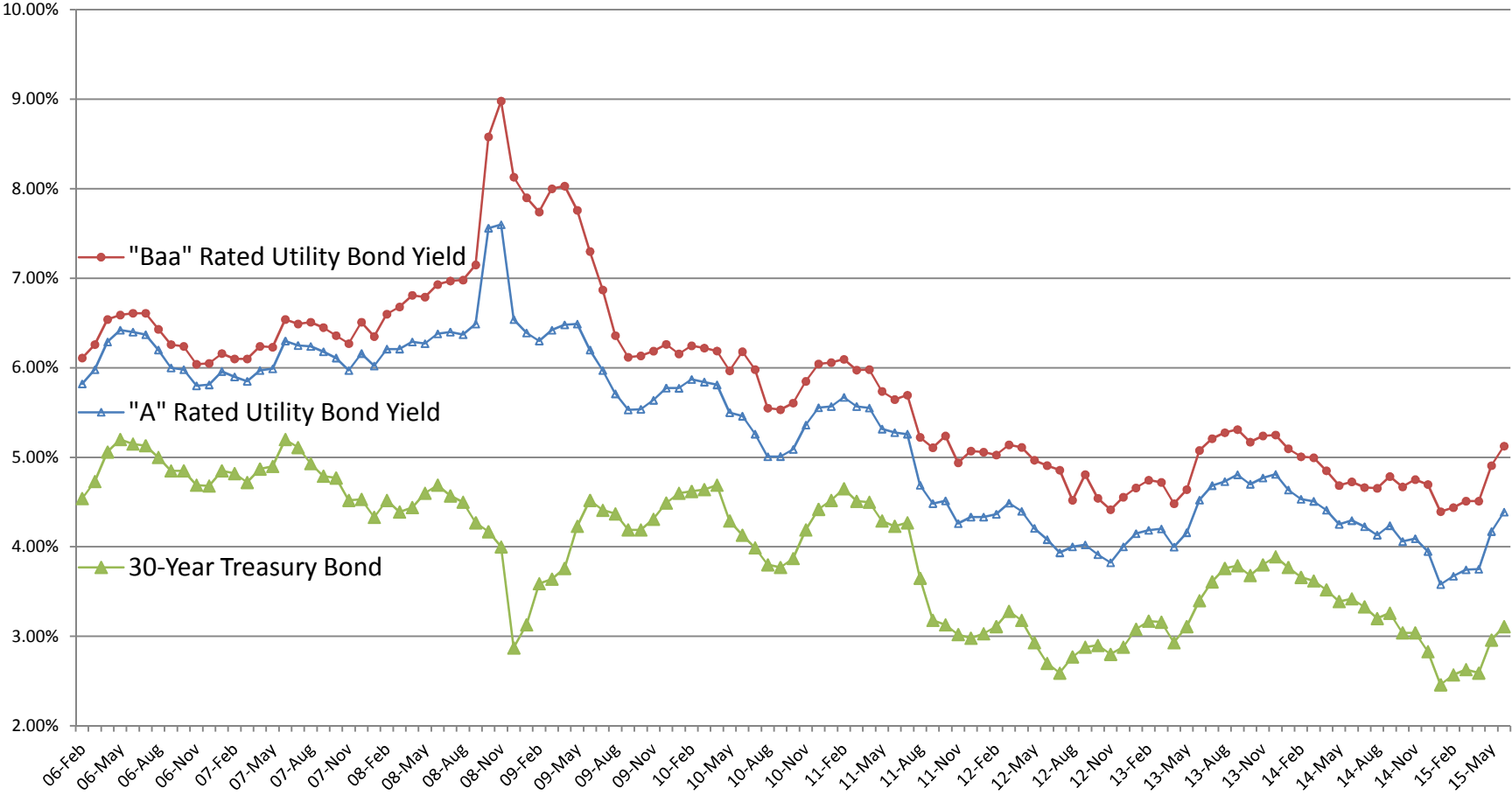
Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² <http://credittrends.moody.com/>.

Avista Corporation

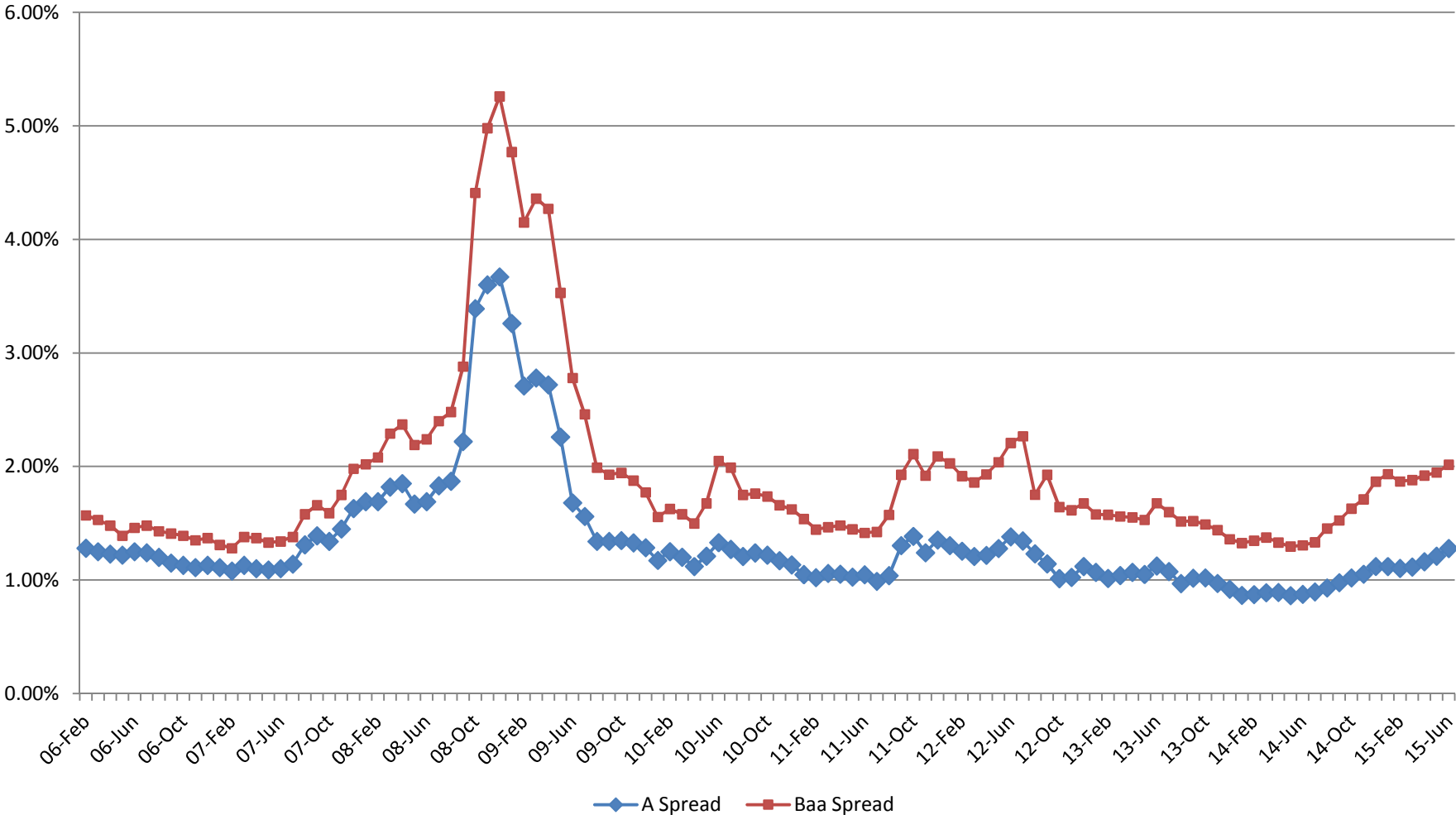
Trends in Bond Yields



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Avista Corporation

Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:
Mergent Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

**BEFORE THE PUBLIC UTILITY COMMISSION
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EXHIBIT NWIGU-CUB/117

VALUE LINE BETA

October 16, 2015

Avista Corporation

Value Line Beta (Gas)

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	Atmos Energy Corporation	0.85
2	Laclede Group, Inc. (The)	0.70
3	New Jersey Resources Corporation	0.85
4	NiSource Inc.	NMF
5	Northwest Natural Gas Company	0.70
6	Piedmont Natural Gas Company, Inc.	0.80
7	South Jersey Industries, Inc.	0.85
8	Southwest Gas Corporation	0.85
9	WGL Holdings, Inc.	0.80
10	Average	0.80

Source:

The Value Line Investment Survey, September 4, 2015.

Avista Corporation

Value Line Beta (Combination)

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	Alliant Energy Corporation	0.80
2	Ameren Corporation	0.75
3	Avista Corporation	0.80
4	CenterPoint Energy, Inc.	0.80
5	CMS Energy Corporation	0.70
6	Consolidated Edison, Inc.	0.60
7	Dominion Resources, Inc.	0.70
8	DTE Energy Company	0.75
9	Duke Energy Corporation	0.60
10	Empire District Electric Company	0.70
11	Entergy Corporation	0.65
12	Eversource Energy	0.75
13	MGE Energy, Inc.	0.75
14	NorthWestern Corporation	0.75
15	PG&E Corporation	0.65
16	Public Service Enterprise Group Incorporated	0.75
17	SCANA Corporation	0.75
18	Sempra Energy	0.80
19	Vectren Corporation	0.80
20	Xcel Energy Inc.	0.65
21	Average	0.73

Source:
The Value Line Investment Survey,
July 31, August 21, and September 18, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
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EXHIBIT NWIGU-CUB/118

CAPM RETURN

October 16, 2015

Avista Corporation

CAPM Return (Gas)

<u>Line</u>	<u>Description</u>	<u>High Market Risk Premium (1)</u>	<u>Low Market Risk Premium (2)</u>
1	Risk Free Rate ¹	3.80%	3.80%
2	Risk Premium ²	7.60%	6.00%
3	Beta ³	0.80	0.80
4	CAPM	9.88%	8.60%
5	Average		9.24%

Sources:

¹ *Blue Chip Financial Forecasts*; September 1, 2015, at 2.

² Morningstar, Inc. *Ibbotson SBBI 2015 Classic Yearbook* at 91, 92, and 152.

³ Exhibit NWIGU-CUB/117, Gorman/1.

Avista Corporation

CAPM Return (Combination)

<u>Line</u>	<u>Description</u>	<u>High Market Risk Premium</u> (1)	<u>Low Market Risk Premium</u> (2)
1	Risk Free Rate ¹	3.80%	3.80%
2	Risk Premium ²	7.60%	6.00%
3	Beta ³	0.73	0.73
4	CAPM	9.35%	8.18%
5	Average		8.76%

Sources:

¹ *Blue Chip Financial Forecasts*; September 1, 2015, at 2.

² Morningstar, Inc. *Ibbotson S&P 500 2015 Classic Yearbook* at 91, 92, and 152.

³ Exhibit NWIGU-CUB/117, Gorman/2.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

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EXHIBIT NWIGU-CUB/119

STANDARD & POOR'S CREDIT METRICS

October 16, 2015

Avista Corporation

Standard & Poor's Credit Metrics

<u>Line</u>	<u>Description</u>	Retail		S&P Benchmark (Medial Volatility) ^{1/2}			<u>Reference</u>
		<u>Cost of Service</u>	<u>Amount (\$000)</u>	<u>Intermediate</u>	<u>Significant</u>	<u>Aggressive</u>	
			(1)	(2)	(3)	(4)	(5)
1	Rate Base - Gas	\$	217,824				Avista/501, Smith/ Page 1 of 11.
2	Weighted Common Return		4.53%				Gorman/2, Line 2, Col. 3.
3	Pre-Tax Rate of Return		10.67%				Gorman/3, Line 3, Col. 4.
4	Income to Common	\$	9,878				Line 1 x Line 2.
5	EBIT	\$	23,249				Line 1 x Line 3.
6	Depreciation & Amortization	\$	11,019				Avista/501, Smith/ Page 1 of 11.
7	Imputed Amortization	\$	878				S&P Credit Portal, downloaded on Sept. 23, 2015
8	Deferred Income Taxes & ITC	\$	11,270				Avista/501, Smith/ Page 1 of 11.
9	Funds from Operations (FFO)	\$	33,045				Sum of Line 4 and Lines 6 through 8.
10	Imputed Interest Expense	\$	299				S&P Credit Portal, downloaded on Sept. 23, 2015
11	EBITDA	\$	35,444				Sum of Lines 5 through 7 and Line 10.
12	Total Debt Ratio		54%				Gorman/3, Line 3, Col. 2.
13	Debt to EBITDA		3.3x	2.5x - 3.5x	3.5x - 4.5x	4.5x - 5.5x	(Line 1 x Line 12) / Line 11.
14	FFO to Total Debt		28%	23% - 35%	13% - 23%	9% - 13%	Line 9 / (Line 1 x Line 12).

Sources:

¹ Standard & Poor's RatingsDirect: "Criteria: Corporate Methodology," November 19, 2013.

² Standard & Poor's RatingsDirect: "Summary: Avista Corp.," May 19, 2015.

Note:

Based on the May 2015 S&P report, Avista has a "Strong" business risk profile and a "Significant" financial risk profile, and falls under the "Medial Volatility" matrix.

Avista Corporation

Standard & Poor's Credit Metrics (Pre-Tax Rate of Return)

<u>Line</u>	<u>Description</u>	<u>Weight</u> (1)	<u>Cost</u> (2)	<u>Weighted</u> <u>Cost</u> (3)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (4)
1	Total Debt	51.5%	5.53%	2.85%	2.85%
2	Common Equity	<u>48.5%</u>	9.35%	<u>4.53%</u>	<u>7.83%</u>
3	Total	100.0%		7.38%	10.67%
4	Tax Conversion Factor*				1.7256

Sources:

¹ Exhibit NWIGU-CUB/102.

* Avista/501, Smith/ Page 2 of 11.

Avista Corporation

Standard & Poor's Credit Metrics (Financial Capital Structure)

<u>Line</u>	<u>Description</u>	<u>Amount (000)</u> <u>(1)</u>	<u>Weight</u> <u>(2)</u>
1	Total Debt	\$ 1,615,517	51.99%
2	Off Balance Sheet Debt*	<u>54,250</u>	<u>1.91%</u>
3	Total Debt	\$ 1,708,718	53.90%
4	Common Equity	<u>1,521,410</u>	<u>46.10%</u>
5	Total	\$ 3,170,177	100.00%

Sources:

* Standard & Poor's Credit Portal, downloaded on
September 23, 2015.

**BEFORE THE PUBLIC UTILITY COMMISSION
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UG 288

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EXHIBIT NWIGU-CUB/120

PREPAID PENSION ASSET ADJUSTMENT

October 16, 2015

Avista Corporation

Prepaid Pension Asset Adjustment

Prepaid pension Asset Included in Avista's Rate Base	\$ 5,655,000
NWIGU-CUB (Gorman) Pre-tax ROR	<u>10.67%</u>
Revenue Requirement Adjustment	<u>\$ 603,388.5</u>

**BEFORE THE PUBLIC UTILITY COMMISSION
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UG 288

In the Matter of)
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**EXHIBIT NWIGU-CUB/121
BONUS DEPRECIATION ADJUSTMENT**

October 16, 2015

Avista Corporation

State Income Tax with Bonus Depreciation

	<u>2014</u> <u>Actual</u> (1)	<u>2015</u> <u>Estimate</u> (2)	<u>2016</u> <u>Estimate</u> (3)	<u>Notes</u>
Corp Pre-Tax Income (2015/2016 per forecast)	179,408,135	183,159,000	204,518,000	
Less: Forecasted GRC Revenue			(52,934,000)	(1)
Adjusted Corp Pre-Tax Income	179,408,135	183,159,000	151,584,000	
Schedule M's				
Non-Plant	35,198,171	35,198,171	35,198,171	(2)
Plant - Tax Deprec over book	(41,652,584)	(41,652,584)	(41,652,584)	(2)
Plant - Bonus Depreciation	(90,000,000)	(90,000,000)	(90,000,000)	(3)
Plant - Repairs for prior years	(125,909,739)			(4)
Plant - Repairs for current year	(28,593,225)	(28,593,225)	(28,593,225)	(4)
Total Schedule M's	(250,957,377)	(125,047,638)	(125,047,638)	
Corp. Taxable Income	(71,549,242)	58,111,362	26,536,362	
Oregon Apportionment Factor	10.780%	10.780%	10.780%	
Oregon Taxable Income	(7,713,008)	6,264,405	2,860,620	
Oregon SIT Rate	7.600%	7.600%	7.600%	
Oregon SIT	(586,189)	476,095	217,407	
Less: Oregon BETCs (See attached spreadsheet)	0	(476,095)	(217,407)	
Net Oregon Taxes	(586,189)	0	0	
Oregon Natural Gas Allocation Factor	75%	75%	75%	
Natural Gas SIT	(439,641)	0	0	
Less: Test Period SIT			(416,386)	
Revised Adjustment			416,386	
Company's Adjustment			1,123,787	
Difference			(707,401)	
Tax factor			1.7256	
Revenue Requirement Impact			(\$1,220,688)	

Source and Notes:

Source: Smith Workpaper 3.02 - 4

- (1) The forecasted GRC revenue is removed from the accrual, since the SIT for revenue from this GRC will be calculated with the SIT rate in the conversion factor.
- (2) The Schedule M adjustments will be materially the same in 2015 and 2016
- (3) Bonus depreciation is expected to be extended for 2015 and 2016.
- (4) The repairs adjustment in 2014 was made up of: a) a one-time adjustment for 2010 - 2013, and b) the 2014 adjustment that will be available in 2015 and future years.

Avista Corporation

ADFIT - Bonus Depreciation 2015 and 2016 Adjustment

(In thousands ('000s))

Line	2014 ADJUSTMENT					2015 ADJUSTMENT				RECONCILIATION	2016 ADJUSTMENT		RECONCILIATION			
	AMA	2014 EOP	2014 Power Tax ADFIT	2.05	EOP	2014 Plant	2015 Plant	2015	2.06	EOP BALANCE	2016 Plant Additions -	2.07	AMA BALANCE			
	12.31.14	Adjustment	Adjustment ^[3]	2014 Total Adjustment	12.31.14	Depreciation	Additions	Retirements	CAP15 2015 Adjustment	12.31.15	Revenue Growth	CAP16 2016 Adjustment	12.31.16			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
Depreciation/Amortization Expense																
1	CAP 14.1	1,189	-	-	1,189	(12)	CAP15	1,412	(154)	1,246	2,435	CAP16	-	-	2,435	
2		U/G Storage/Prod	114	-	-	114	(1)	2	(0)	1	115	-	-	115		
3		Distribution	4,954	-	-	4,954	851	759	(31)	1,579	6,533	52	52	6,585		
4		General	1,580	-	-	1,580	139	214	(48)	305	1,885	-	-	1,885		
5		Total Expenses	7,837	-	-	7,837	977	2,387	(233)	3,131	10,968	52	52	11,019		
6		Net Operating Income Before FIT	(7,837)	-	-	(7,837)	(977)	(2,387)	233	(3,131)	(10,968)	(52)	(52)	(11,019)		
7		FIT Benefit of Depreciation/Amor	2,743	-	-	2,743	342	835	(82)	1,096	3,839	18	18	3,857		
8		Net Operating Income	(5,094)	-	-	(5,094)	(635)	(1,552)	152	(2,035)	(7,129)	(34)	(34)	(7,163)		
Plant Cost																
9	CAP 14.2	7,234	CAP 14.4	37	-	37	7,271	CAP15	11,524	(694)	10,829	18,101	-	-	18,101	
10		U/G Storage	5,871	47	-	47	5,918	131	(1)	130	6,048	-	-	6,048		
11		Distribution	273,960	10,627	-	10,627	284,587	30,115	(1,212)	28,903	313,490	2,049	2,049	315,539		
12		General	25,702	(79)	-	(79)	25,623	4,491	(1,334)	3,157	28,780	-	-	28,780		
13		Total Plant Cost	312,766	10,633	-	10,633	323,399	-	46,260	(3,241)	43,019	366,418	2,049	2,049	368,467	
Accumulated Depreciation																
14		Intangible	(2,867)	192	-	192	(2,676)	(1,177)	CAP15	(866)	694	(1,349)	(4,025)	-	-	(4,025)
15		U/G Storage	(572)	(57)	-	(57)	(629)	(113)	(1)	1	(113)	(742)	-	-	(742)	
16		Distribution	(90,660)	(1,939)	-	(1,939)	(92,599)	(5,805)	(287)	1,212	(4,880)	(97,479)	(26)	(26)	(97,505)	
17		General	(7,916)	318	-	318	(7,598)	(1,719)	(83)	1,334	(468)	(8,066)	-	-	(8,066)	
18		Total Accumulated Depreciation	(102,015)	(1,487)	-	(1,487)	(103,501)	(8,814)	(1,238)	3,241	(6,810)	(110,312)	(26)	(26)	(110,337)	
Accumulated DFIT ^{[1], [2]}																
19		Intangible	-	-	-	-	-	CAP15	(2,321)	-	(2,321)	(2,321)	-	-	(2,321)	
20		U/G Storage	-	-	-	-	-	(23)	-	(23)	(23)	-	-	(23)		
21		Distribution	(39,461)	(10,829)	7,167	(3,662)	(43,123)	(1,940)	(5,367)	-	(7,307)	(50,431)	(392)	(392)	(50,822)	
22		General	(7,052)	2,224	(1,034)	1,190	(5,862)	137	(879)	-	(742)	(6,604)	-	-	(6,604)	
23		Total Accumulated DFIT	(46,513)	(8,605)	6,134	(2,472)	(48,985)	(1,804)	(8,590)	-	(10,394)	(59,379)	(392)	(392)	(59,770)	
24		Net Rate Base With Bonus	164,238	540	6,134	6,674	170,912	(10,618)	36,432	-	25,815	196,727	1,632	1,632	198,359	
25		Avista Rate Base									203,897	check		205,901		
26		Rate Base Change For Bonus									(7,170)			(7,541)		
27		M. Gorman's pretax ROR									10.67%			10.67%		
28		Revenue Requirement Change									(765)			(805)		

Source and Notes:

Source: Schuh Workpapers, Adjustments 2.05 - 2.07, Page 3 of 35.

^[1] For presentation of results of operations (ROO) herein, ADFIT for intangibles is included with General Plant ADFIT and U/G Storage ADFIT included with Distribution.

^[2] ADFIT for 2015 for plant in service at December 31, 2014 not separated between changes in depreciation rates and additional depreciation expense.

^[3] This adjustment corrects the jurisdictional allocation of ADFIT within the general ledger. Historically, our total (system) ADFIT balance agreed between our income tax calculation and the general ledger, but the jurisdictional balances did not agree between our tax calculations and the general ledger.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

EXHIBIT NWIGU-CUB/122

EXPECTED RETURN ON PENSION ASSETS

REDACTED

October 16, 2015

Avista Corporation

Expected Return on Pension Assets

Line

1	Updated Expected Rate of Return on Pension Assets	
2	Previous Expected Rate of Return on Pension Assets	
3	Reduction in Expected Rate of Return	
4	Pension Plan Assets	
5	Reduction in Expected Return on Pension Assets	
6	Avista's Utility Operation & Maintenance %	
7	Utility Operation & Maintenance Expense	
8	Avista's Oregon %	
9	Oregon Operation & Maintenance Expense Adjustment	<u>\$ (338,656)</u>

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UG 288

In the Matter of)
)
AVISTA CORPORATION, dba)
AVISTA UTILITIES,)
)
Request for a General Rate Revision.)
_____)

**EXHIBIT NWIGU-CUB/123
DEPRECIATION RATES**

October 16, 2015

**AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION**

JURISDICTION:	Oregon	DATE PREPARED:	06/01/2015
CASE NO.:	UG 288	WITNESS:	Karen Schuh
REQUESTER:	PUC Staff - Peng	RESPONDER:	David Machado
TYPE:	Data Request	DEPT:	State & Federal Regulation
REQUEST NO.:	Staff – 152	TELEPHONE:	(509) 495-4554
		EMAIL:	david.machado@avistacorp.com

REQUEST:

152. Please provide the calculation in Excel format with the cell reference links and formulae for exhibits AVISTA/502, Smith, and for AVISTA/600, Schuh. The data set could include, but not limited to, the following:

- 1) CAP SUMMARY- OR - 12.31.15 EOP (w 2016 AMA Growth) – linked
- 2) EOP and Full Year Depreciation Adjustments – linked
- 3) Filed - 2015 OR Gas Rev Req Model
- 4) Transportation Depreciation Study Support
- 5) UM 1626 Settled Exhibit 102 Attachment A-linked

152.1 Please provide the cell reference links and formulae, in Excel format, between the “book rate” Avista used in this filing and the “depreciation rates” the Commission approved in Order 13-168. For the rates Avista used that are not in the Order, such as Intangible Assets, please explain how these rates are determined.

152.2 Please provide the calculation of forecasted depreciation expense and reserve for each year 2015 and 2016 with the cell reference links and formulae.

152.3 Please add cell reference links and formulae on Total Adjustments to Depreciation & Amortization (+3,183) and Accumulated Depreciation & Amortization (-8,322) in “Avista/501, Smith/1 of 11.”

RESPONSE:

152. Items 1, 2, 4, and 5 listed above are included as Staff_DR_152 Attachments A, B, D, and E, respectively. Item 3 listed above, “Filed – 2015 OR Gas Rev Req Model,” was previously provided with our original filing in this general rate case – we have included this file again, in response to this data request, as Staff_DR_152 Attachment C.

152.1. The cell reference links and formulae, in Excel format, requested in the request are included in the files entitled “EOP and Full Year Depreciation Adjustments – linked” and “UM 1626 Settled Exhibit 102 Attachment A-linked,” which we have included as attachments Staff_DR_152 – Attachment B and Staff_DR_152 – Attachment D in our response to DR 152.

For depreciation rates that were not included in Order 13-168, Docket UM-1626, the depreciation rates used in the current filing are equal to the depreciation rates identified in the depreciation study from which the rates included in the aforementioned Order 13-168 were sourced. For depreciation rates associated with new fixed asset accounts that were not present as of the most recent depreciation study, the depreciation rates used in the current filing represent the effective depreciation rate in the base year (average-of-monthly-averages for the twelve months ended December 31, 2014).

Subsequent to the filing of the general rate case, it was discovered that certain forecast depreciation rates had not been correctly updated. These depreciation rates have been appropriately updated in the files submitted in response to this data request, and the “CAP SUMMARY-OR – 12.31.15 EOP (w 2016 AMA Growth) – linked” file (Staff_DR_152 Attachment A to this response) reflects these updated depreciation rates. Following the aforementioned updates, the updated balances for Total Adjustments to Depreciation & Amortization and Accumulated Depreciation & Amortization are \$2,900 and (\$8,147), respectively. The impact to revenue requirement is a decrease of \$277,000.

152.2. The calculation of forecast depreciation expense and the forecast accumulated depreciation (depreciation reserve) are included within the file entitled “CAP SUMMARY – OR – 12.31.15 EOP (w 2016 AMA Growth) – linked,” which is included as attachment Staff_DR_152 – Attachment A in our response to this data request.

152.3. The cell references and formulae for the Total Adjustments to Depreciation & Amortization (+3,183) and Accumulated Depreciation & Amortization (-8,322) in “Avista/501, Smith/1 of 11 have previously been included within the originally filed native format Excel file entitled “*Filed – 2015 OR Gas Rev Req Model.*”

For further clarification, within this native format workpaper, the \$3,183 Total Adjustment to Depreciation & Amortization is the sum of cells AT59, AT93, AT143, AT148, and AT160 on the tab entitled “Exh 502-ADJ Detail Input.” Likewise, the (\$8,322) Total Adjustment to Accumulated Depreciation & Amortization is equal to cell AT244 on the “Exh 502-ADJ Detail Input” tab.

Each of the aforementioned cells (AT59, AT93, AT143, AT148, AT160, and AT244) reflect the cross-sum of all adjustments. However, adjustments to depreciation & amortization expense and accumulated depreciation & amortization only occurred within adjustments 2.05, 2.06, and 2.07, which are included in columns Y, Z, and AA in the “Exh 502-ADJ Detail Input” tab. The adjustment balances included in these three adjustments come from the respective adjustments calculated and included within the “CAP SUMMARY-OR – 12.31.15 EOP (w 2016 AMA Growth)” file, which was included in Ms. Schuh’s native format workpapers.