

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND	)	
TRANSPORTATION COMMISSION,	)	
Complainant,	)	Docket No. UE-110876
	)	Docket No. UG-110877
v.	)	Docket No. UE-120436
	)	Docket No. UG-120437
AVISTA CORPORATION d/b/a	)	<i>(consolidated)</i>
AVISTA UTILITIES,	)	
Respondent.	)	
	)	
	)	

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**RESPONSIVE TESTIMONY OF MICHAEL P. GORMAN**

**ON BEHALF OF**

**THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES**

**September 19, 2012**

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. WHAT IS YOUR OCCUPATION?**

5 **A.** I am a consultant in the field of public utility regulation and a managing principal of  
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
8 **EXPERIENCE.**

9 **A.** These are set forth in Exhibit No.\_\_(MPG-2).

10 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 **A.** I am appearing on behalf of the Industrial Customers of Northwest Utilities (“ICNU”).

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

13 **A.** I will comment on Avista Corporation d/b/a Avista Utilities’ (“Avista” or the  
14 “Company”) proposed attrition year cost of service adjustment, and I will recommend  
15 a fair return on common equity and overall rate of return for Avista.

16 **I. SUMMARY**

17 **Q. PLEASE SUMMARIZE YOUR TESTIMONY CONCERNING AVISTA’S**  
18 **ATTRITION YEAR COST OF SERVICE ADJUSTMENT.**

19 **A.** Avista’s proposed attrition year cost of service adjustment should be rejected. This  
20 attrition year cost of service adjustment is inappropriate and should not be used to  
21 develop a revenue deficiency for Avista in this case for the following reasons:

22 1. Avista proposes an attrition year adjustment to its cost of service in order to reduce  
23 the number of rate cases to calibrate its rates to its cost of service. However,  
24 Avista’s proposal accomplishes this goal by setting prices above its cost of service.  
25 A process that produces excessive prices will materially erode customer  
26 protections in the ratemaking process.

1 2. Avista’s proposed attrition year adjustment to its cost of service proposed by  
2 Avista witness Andrews in this case is an inexact measurement of costs, and  
3 unreliable method of estimating a revenue deficiency. Her adjustment produces an  
4 excessive cost of service and substantial overstatement of Avista’s cost of service  
5 and revenue deficiency.

6 3. Avista’s proposed trending methodology in support of its attrition year adjustment  
7 is materially flawed, and a wholly inexact method of estimating costs, revenue  
8 deficiency and rate-setting trends. Therefore, it should not be relied upon to  
9 develop rate-setting policy in Washington.

10 **Q. PLEASE SUMMARIZE YOUR RETURN ON EQUITY**  
11 **RECOMMENDATIONS.**

12 **A.** Based on my proposed capital structure, I recommend the Washington Utilities and  
13 Transportation Commission (the “Commission”) award Avista a return on common  
14 equity of 9.40% and an overall rate of return of **7.48%**, as shown in Exhibit  
15 No. \_\_\_(MPG-3).

16 If Avista’s proposed modifications to its rate mechanisms and attrition year  
17 cost of service adjustments are approved, then I recommend the Commission award a  
18 return on equity at the low end of my estimated return on equity range, or 9.1%.

19 Avista’s proposed changes to its regulatory mechanisms will substantiate reduce its  
20 operating risk, and shift significant sales and operating risks to its retail customers.  
21 This shift in risk justifies a reduction in the authorized return on equity to mitigate  
22 Avista’s rate increase and compensate customers for taking more of shareholders’  
23 operating risk for utility operations.

24 My recommended return on equity range and the Company’s actual capital  
25 structure will provide Avista with an opportunity to realize cash flow financial  
26 coverages and balance sheet strength that support Avista’s current investment grade  
27 bond rating. Consequently, my recommended return on equity range represents fair

1 compensation given Avista's investment risk, and it will preserve the Company's  
2 financial integrity and credit standing.

3 Further, I recommend adjustments to Avista's proposed ratemaking capital  
4 structure. I recommend the common equity supporting Avista's non-regulated  
5 operations be removed from the capital structure used to develop the overall rate of  
6 return for regulated operations. This adjustment is necessary in order to eliminate any  
7 subsidies between regulated and non-regulated operations, and is a better estimate of  
8 the true cost of capital supporting Avista's utility business. My proposed adjustments  
9 to Avista's capital structure would reduce the common equity ratio from the 48.4%  
10 proposed by Avista down to 47.3%.

11 I will also respond to Avista witness Dr. William E. Avera's proposed return  
12 on equity of 10.90%. For the reasons discussed below, Dr. Avera's recommended  
13 return on equity is excessive and should be rejected.

14 **Q. HOW DID YOU ESTIMATE AVISTA'S CURRENT MARKET COST OF**  
15 **EQUITY?**

16 **A.** I performed analyses using three Discounted Cash Flow ("DCF") models, a Risk  
17 Premium ("RP") study, and a Capital Asset Pricing Model ("CAPM"). These analyses  
18 used a proxy group of publicly traded companies that have investment risk similar to  
19 Avista. Based on these assessments, I estimate Avista's current market cost of equity  
20 to be 9.40%.

21 **Q. WHAT IS THE REVENUE IMPACT OF YOUR RETURN ON EQUITY AND**  
22 **CAPITAL STRUCTURE ADJUSTMENTS?**

23 **A.** The revenue impact from reducing Avista's return on equity from 10.90% to 9.40%  
24 and reducing the common equity ratio from 48.4% to 47.4% lowers the Company's  
25 Washington jurisdictional revenue requirements by \$15.5 million.

1 **II. ATTRITION REVENUE REQUIREMENT ADJUSTMENT**

2 **Q. DID AVISTA INCLUDE AN ATTRITION REVENUE REQUIREMENT**  
3 **ADJUSTMENT IN ITS COST OF SERVICE?**

4 **A.** Yes. As shown in the schedules attached to Avista witness Elizabeth M. Andrews’  
5 testimony, the Company increased its claimed revenue deficiency from \$20.99 million  
6 to \$41.5 million to reflect an attrition year adjustment to its traditional cost of  
7 service.<sup>1/</sup> The principle underlying the Company’s claim for an attrition year cost of  
8 service adjustment is described in Avista witness Mark Lowry’s testimony.<sup>2/</sup> The  
9 actual application of the attrition year adjustment to Avista’s cost of service in this  
10 case is included in Avista witness Ms. Andrews’ testimony and exhibits.

11 **Q. IS THE COMPANY’S PROPOSED ATTRITION YEAR COST OF SERVICE**  
12 **ADJUSTMENT FAIR AND REASONABLE?**

13 **A.** No. The Company’s proposed attrition year cost of service adjustment outlined in  
14 Mr. Lowry’s testimony is severely flawed and is not a fair method of setting rates in a  
15 way that balances the interests of investors and ratepayers. Further, the actual  
16 application of the attrition year adjustment outlined in Ms. Andrews’ testimony is not  
17 the same as that advocated by Mr. Lowry. Mr. Lowry’s cost trend study represents a  
18 material break from traditional cost of service. Traditional cost of service provides a  
19 transparent and verifiable revenue requirement using standard accounting rules, and a  
20 clear measure of fair compensation and cost of service. In significant contrast, Mr.  
21 Lowry’s trending methodology is a highly inexact and flawed method of estimating a  
22 utility’s cost of providing service. Therefore, Mr. Lowry’s trending methodology  
23 cannot be relied on to ensure that rates are set at a just and reasonable level.

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<sup>1/</sup> Exh. No. \_\_\_\_ (EMA-2) at 9 (Andrews).

<sup>2/</sup> Exh. No. \_\_\_\_ (MNL-1T) (Lowry).

1 Mr. Lowry's trending assumptions ignore management's obligation to manage  
2 costs and mitigate cost escalation by improving productivity, pursuing cost reduction  
3 opportunities and enhancing system efficiency. Indeed, Mr. Lowry's analysis simply  
4 ignores the benefits that can be created by effective utility management, a  
5 productive/efficient work force, and technological advances.

6 **Q. WHY DOES MR. LOWRY BELIEVE AN ATTRITION YEAR ADJUSTMENT**  
7 **TO AVISTA'S COST OF SERVICE IS APPROPRIATE?**

8 **A.** Mr. Lowry believes that Avista has an under-earning problem because the traditional  
9 rate-setting mechanisms in Washington do not fully capture Avista's increasing cost of  
10 service. He references the Company's elevated and sustained capital expenditure  
11 program, which is causing rate base growth and limiting Avista's ability to recover its  
12 cost of service (earn its authorized return on equity) when rates are in effect.

13 He notes that Avista's Washington electric operations have under-earned for at  
14 least the last five years.<sup>3/</sup> Mr. Lowry believes that mitigating the under-earning  
15 problem will allow utilities to attract capital under more reasonable terms, and benefit  
16 customers because rate cases would be filed less frequently. He also believes that  
17 mitigation of under-earnings will send customers better price signals about cost that  
18 will help them make better consumption decisions.

19 **Q. IS MR. LOWRY'S PROPOSED ATTRITION MECHANISM IN AVISTA'S**  
20 **WASHINGTON RETAIL COST OF SERVICE APPROPRIATE?**

21 **A.** No. There are material flaws to Mr. Lowry's proposed attrition adjustment to cost of  
22 service. These flaws include the following:

23 Customers' interests are not protected, and they do not receive better price  
24 signals if the utility rates are not based on a revenue requirement that reflects efficient

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<sup>3/</sup> Exh. No. \_\_\_\_ (MNL-1T) at 10-12.

1 cost management. If prices are set too high, a utility could earn more than its allowed  
2 return on equity, and file fewer rate cases, but customers are not better off if prices are  
3 set above the utility's cost of service.

4 By setting prices too high, Mr. Lowry would erode utility management's  
5 economic incentive to aggressively manage costs in order to achieve its earnings  
6 target. Using Mr. Lowry's trending methodologies to project future cost ignores  
7 productivity cost enhancements, competitive procurement of service to reduce cost  
8 escalation, and overall demands on employees to enhance productivity to mitigate cost  
9 escalation. Mr. Lowry's analysis is completely devoid of the customers' right to  
10 expect utility management to produce achievable cost efficiencies and productivity  
11 gains.

12 Mr. Lowry's attrition trending methodology produces a wildly inexact and  
13 unreliable cost of service in this case. His projections are internally inconsistent and  
14 his trending methodology would perpetuate a grossly mismanaged utility.

15 **Q. PLEASE EXPLAIN WHY CUSTOMERS ARE NOT BETTER OFF WITH THE**  
16 **COMPANY'S PROPOSED ATTRITION YEAR COST OF SERVICE**  
17 **ADJUSTMENT.**

18 **A.** The Company's attrition year cost of service in this proceeding would double its  
19 claimed revenue deficiency in this case—\$20.99 million up to \$41.5 million. The  
20 effect of increasing the cost of service in this proceeding would be to substantially  
21 increase the Company's earned rate of return, likely to well above the authorized rate  
22 of return during at least the first year the rates will be in effect. Specifically, the  
23 Company's proposed two-year attrition period will result in rates that are designed to  
24 produce over-earnings in the first year the rates are in effect, and earn the authorized  
25 return in the second year the rates are in effect. This proposal to produce an excessive

1 cost of service over the two-year attrition period and will cause customers to pay  
2 excessive rates, on average over the two-year period.

3 The existence of the cost pressures and the desire of management to earn the  
4 target return on equity are the very basis of the economic incentives which drive  
5 management to be as efficient as possible in minimizing its escalation of its costs, and  
6 to realize revenue that provides it an opportunity to earn its authorized return on  
7 equity. Using an attrition year cost of service methodology which produces rates that  
8 reflect an elevated cost of service level based on projected future cost increases will  
9 reduce management's incentive and need to limit escalation of its cost of service. As  
10 such, under the Company's proposed attrition year cost of service adjustment, earning  
11 the target return on equity will be a function of trending methodologies and other  
12 economic studies used to inflate the cost of service in rate case filings, rather than  
13 keeping the burden on management to control its cost of service while the rates are in  
14 effect in order to realize the profit opportunities provided in the last rate case. The  
15 Company's attrition year adjustment will simply eliminate the incentive for  
16 management to be as efficient as possible.

17 **Q. ARE CUSTOMERS BETTER OFF WITH FEWER RATE CASES?**

18 **A.** Not necessarily. It is far more efficient and cost competitive for customers to pay for  
19 more frequent rate cases and the related rate case expense than to pay rates that are  
20 inflated by \$21 million to reflect projected cost increases that may be incurred while  
21 the rates are in effect. Therefore, customers are far better off under traditional  
22 ratemaking practices than they are under the Company's proposed attrition year cost  
23 of service principles, even if rate cases are filed annually.



1 **Q. PLEASE EXPLAIN WHY UTILITY MANAGEMENT’S ECONOMIC**  
2 **INCENTIVE TO MANAGE COSTS WOULD BE ERODED UNDER MR.**  
3 **LOWRY’S ATTRITION YEAR COST OF SERVICE ADJUSTMENTS.**

4 **A.** Managing cost of service to realize earnings targets based on a prescribed efficient  
5 pricing structure is critical to create an economic incentive for management to be as  
6 efficient as possible. Non-regulated companies are forced to manage their cost  
7 structures to achieve profit targets while taking prices set by the market. In contrast, a  
8 regulated entity must also pursue every opportunity to manage its cost of service in  
9 order to realize its profit targets at a pricing structure that is just and reasonable.

10 Modifying the traditional ratemaking practices to simply increase cost of  
11 service to inflate rates—that is, to provide an easier road for the Company to realize its  
12 earnings target—reduces management’s incentive to be efficient.

13 **MR. LOWRY’S ATTRITION STUDY**

14 **Q. PLEASE EXPLAIN WHY MR. LOWRY’S ATTRITION COST TRENDING**  
15 **METHODOLOGY PRODUCES A FLAWED AND UNRELIABLE COST OF**  
16 **SERVICE PROJECTION.**

17 **A.** Mr. Lowry’s attrition year trending analysis is unreliable for the following reasons:

18 The accuracy of his projected revenue growth is problematic. His projected  
19 billing unit growth reflects an increase in the number of customers, an increase in the  
20 volume billing units (kWh), but a decrease in the billing demand units for all rate  
21 classes.<sup>4/</sup> The effect of Mr. Lowry’s billing unit changes suggests there will be a  
22 material increase in the load factors for all rate classes—General Service, Large  
23 General Service, and Extra Large General Service customers. This would, of course,  
24 be desirable because it would increase the utilization of utility assets. However, this  
25 increase in the load characteristics of all customers is material and will impact

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<sup>4/</sup> Exh. No. \_\_\_\_ (MNL-4).

1 Avista's cost of providing service. Such a material change to load characteristics  
2 should not be based on a simple trending analysis, but should rather be based on more  
3 detailed assessment of the actual load characteristics of customers.

4 Further, the trending period relied on by Mr. Lowry includes one of the worst  
5 economic recessions the U.S. has ever experienced. Hence, the trending study may  
6 reflect changes in load characteristics and consumption that were caused by a  
7 distressed economy and not by changes to normal customer consumption patterns. As  
8 such, Mr. Lowry's analysis simply is unreliable.

9 Mr. Lowry's trending study includes a projected escalation for operating  
10 expenses of 9.71% during the period 2011 through 2013, a two-year period. This  
11 projected escalation of operating expenses represents an escalator that is more than  
12 twice the expected level of inflation over the same time period. Hence, Mr. Lowry's  
13 operations and maintenance ("O&M") expense projections reflect a complete failure  
14 of management to control operating expenses. Indeed, it is reasonable to expect that  
15 management would maintain operating expense escalation at a rate equal to or less  
16 than the rate of inflation. The escalation could be lower than the rate of inflation if  
17 management achieves productivity gains in managing costs.

18 Also, the trend in the study relied on by Mr. Lowry likely did reflect the  
19 existence of recent non-recurring, abnormal, and unpredictable O&M expense  
20 escalation. For example, pension expense has been driven by changes in the valuation  
21 of the pension trust fund asset. Also, increases in employee benefits costs may not  
22 trend forward in the same level as in the past, due to changes in health care insurance.  
23 Mr. Lowry's trending study is not reliable.

1 Further, Mr. Lowry's projected increase in depreciation expense (15.38%  
2 escalation) and rate base growth (12.95%) are internally inconsistent. Depreciation  
3 expense will increase with the level of growth in utility gross plant investment. If  
4 gross plant investment increases at a 12.95% rate, then depreciation expense should  
5 also increase at a 12.95% rate. Mr. Lowry's assumption for a faster depreciation  
6 expense escalation than gross plant investment escalation can only be accomplished by  
7 changing depreciation rates each year. Mr. Lowry's trending study is not reliable  
8 because his projected growth rate for depreciation expense is inconsistent with his  
9 expected growth rate of gross plant investment.

10 Further, his buildup of accumulated depreciation will change with the level of  
11 growth in depreciation expense. Again, Mr. Lowry's projected increase in  
12 accumulated depreciation of 12.95% is inconsistent with his projected growth rate of  
13 depreciation expense (15.38%). Mr. Lowry simply is not accumulating additional  
14 depreciation expense increases to offset gross plant additions in calculating net plant  
15 in his attrition year forecast. These inconsistencies result in a misstatement of rate  
16 base, and an overstatement of Avista's cost of service.

17 Mr. Lowry has also ignored changes in the utility's cost of capital. The  
18 Company's own evidence<sup>5/</sup> indicates that the Company is refinancing existing debt  
19 instruments at lower interest rates, which is lowering its cost of capital. This reduction  
20 in the cost of capital and the overall rate of return are ignored by Mr. Lowry in his  
21 trending attrition year cost projections. Therefore, he is again overstating Avista's  
22 cost of service.

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<sup>5/</sup> Exh. No. \_\_\_(MTT-1T) at 5 (Thies).

1 Further, had Mr. Lowry trended changes in utilities' operating income he  
2 would show a significant decline in that trend caused by declines in the cost of capital,  
3 offset by growth in rate base. Hence, his capital market costs have been steadily  
4 declining over the last three to five years (declining capital costs are referenced later in  
5 my testimony). This capital cost decline offsets the increasing cost caused by rate  
6 base growth. This offsetting trend was ignored in Mr. Lowry's trending analysis.

7 **Ms. Andrews' Attrition Adjustment**

8 **Q. PLEASE DESCRIBE HOW MS. ANDREWS INCLUDES THE ATTRITION**  
9 **ADJUSTMENT IN HER ESTIMATE OF AVISTA'S COST OF SERVICE IN**  
10 **THIS CASE.**

11 **A.** Ms. Andrews developed the Company's claimed revenue deficiency on her Exhibit  
12 EMA-2. As shown on pages 5 through 8 of that exhibit, she includes the Company's  
13 2011 results of operations, describes certain adjustments to the cost of service and  
14 produces a restated amount on page 7, and then proposes several pro forma  
15 adjustments to year-end 2011 cost of service. She adds alternative attrition year  
16 adjustments by adding the revenue requirement effect of planned capital additions for  
17 calendar year 2012, and 13-month average capital additions for calendar year 2013,  
18 plus demand-side management ("DSM") and other adjustments.

19 **Q. DOES MS. ANDREWS' PROPOSED ATTRITION YEAR ADJUSTMENT TO**  
20 **AVISTA'S COST OF SERVICE PRODUCE A BALANCED AND**  
21 **REASONABLE REVENUE REQUIREMENT USED TO SET RATES IN THIS**  
22 **PROCEEDING?**

23 **A.** No. Ms. Andrews' attrition year cost of service adjustment is a one-sided self-serving  
24 exercise that inflates the Company's cost of service. She intentionally inflates the  
25 Company's cost of service for a 2011 test year for cost increases projected out through  
26 2013. However, she ignores revenue growth at current rates produced through

1 increasing customers and sales growth through 2013. As such, she has designed a  
2 methodology that escalates some cost of service but ignores cost decreases and  
3 revenue growth. The Commission cannot rely on this attrition adjustment to set just  
4 and reasonable rates.

5 **Q. WHY IS MS. ANDREWS' PROPOSED ATTRITION YEAR COST OF**  
6 **SERVICE NOT REASONABLE?**

7 **A.** There is a substantial mismatch between the calendar year revenues (2011) and the  
8 calendar year rate base costs (2013). Ms. Andrews ignores growth in revenues in her  
9 attrition year projections. Mr. Lowry's billing growth projects growth in base  
10 revenues of \$11.197 million between 2011 and 2013. Although I have concerns that  
11 Mr. Lowry understated sales growth revenue because of his optimistic projections of  
12 demand unit declines, this projected revenue growth largely offsets the increase in  
13 revenue requirement for rate base growth (\$16.25 million) projected by Ms. Andrews.

14 To her credit, Ms. Andrews did not include the highly unreliable and flawed  
15 O&M expense projection methodology proposed by Mr. Lowry. However, she also  
16 did not consider the projected decrease in cost of capital likely to be realized by Avista  
17 as it refinances its existing embedded debt at lower interest rates, and increases its  
18 outstanding debt at marginal interest rates that are below the embedded interest rates.  
19 These cost of capital savings will offset the revenue requirement increase caused by  
20 rate base growth. Ms. Andrews' attrition study ignores cost reductions.

21 **Q. HOW DO YOU INTERPRET THE ATTRITION YEAR ADJUSTMENT**  
22 **PROPOSED BY MS. ANDREWS?**

23 **A.** The Company's revenue growth projections of \$11.2 million through 2013 (at current  
24 rates) will largely offset the increased revenue requirement for the two-year rate base  
25 growth estimated by Ms. Andrews of \$16.3 million. Again, however, Ms. Andrews'

1 revenue requirement adjustment does not include an expectation of lower cost of  
2 capital as Avista embedded debt costs decline. As such, the revenue growth at current  
3 rates will largely offset the increase in the Company's cost of service produced  
4 through rate base growth.

5 Ms. Andrews' projection for a DSM cost of service increase is based on lost  
6 sales revenue. This outlook simply is not justified. Conservation may mitigate  
7 growth in sales, but Ms. Andrews has provided no evidence that it would actually  
8 result in lower sales. If conservation results in a lower growth in Avista's sales, then  
9 revenues will not decline—they simply would not go up as high as they otherwise  
10 would. Ms. Andrews' DSM adjustment attempts to compensate the Company for lost  
11 sales rather than cost changes. This is inappropriate because it provides compensation  
12 for more than a fair return on invested capital based on projected sales levels for 2011.

13 The Company's claim that it will under-earn its return because its rate base is  
14 growing is not as material as it asserts. As clearly noted in Ms. Andrews' projections  
15 for calendar year 2013, Avista's rate base will actually decline despite \$39 million of  
16 new capital improvements.<sup>6/</sup> In 2013, the Company's accumulated depreciation will  
17 grow by \$60 million, which more than offsets the new plant additions. The bottom  
18 line is that rate base declines in 2013 over 2012.

19 Further, the percent growth in rate base will start to slow over time even if  
20 Avista maintains an elevated capital spending program. The growth in rate base will  
21 slow because Avista will be growing a larger rate base which will mean a smaller  
22 percent change in rate base assuming a relatively constant capital improvement  
23 program. Capital improvement levels cannot increase indefinitely because Avista has

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<sup>6/</sup> Exh. No. \_\_\_\_ (EMA-2) at 9.

1 limited resources to engineer, plan and manage capital improvements to its system.  
2 Over time, increases in rate base will start to slow as a percentage of embedded rate  
3 base, and elevated additions level off. As a result, the percent increase in Avista’s cost  
4 of service will start to slow, which will mitigate its under-earning risk associated with  
5 a growing rate base. Thus, rate case frequency may start to slow naturally over time  
6 as changes in rate base result in a slower growth to rate base.

7 **Q. WOULD CUSTOMERS BE EXPOSED TO EXCESSIVE PRICING IF THE**  
8 **COMPANY’S PROPOSED ATTRITION YEAR COST OF SERVICE**  
9 **METHODOLOGY IS ADOPTED?**

10 **A.** Yes. The primary determinant underlying the cost justification of the Company’s  
11 attrition year projections is that it actually goes forward with and increases its rate  
12 base in line with its projections. If the Company’s projected increases in rate base are  
13 lower than it is projecting, then its attrition year cost of service adjustment would be  
14 highly flawed. Further, if the Company sales revenue grows at current rates, then the  
15 Company’s attrition year adjustment will overstate its need for a rate increase. The  
16 only way to accurately measure whether or not existing rates are producing adequate  
17 revenues is to consider all cost of service—revenues, expenses and invested capital—  
18 at the same point in time.

19 **III. ENERGY RECOVERY MECHANISM (“ERM”)**

20 **Q. PLEASE DESCRIBE AVISTA’S CURRENT ERM.**

21 **A.** The Company’s current and proposed ERM are described on pages 11-12 of William  
22 Johnson’s direct testimony. Avista’s current ERM is subject to a deadband of \$4  
23 million. However, if the Company’s power supply costs are higher than the costs  
24 authorized to be recovered in base rates within the range of \$4 million to \$10 million,  
25 a 50% (Avista)/50% (Customers) sharing mechanism is applied. Conversely, if the

1 costs are less than expected the Company is subject to 25% (Avista)/75% (Customers).  
2 Finally, all costs above \$10 million are recovered on the basis of 10% (Avista)/90%  
3 (Customers).

4 **Q. HOW IS THE COMPANY PROPOSING TO MODIFY THE EXISTING ERM.**

5 **A.** Avista is proposing to remove the existing \$4 million deadband and sharing bands, \$4  
6 million to \$10 million, and strictly recover all costs on the basis of 10% (Avista)/90%  
7 (Customers), which will reduce the Company's risk and will further stabilize its  
8 earnings and cash flows, while exposing the customers to greater volatility.

9 **Q. WHY DO YOU BELIEVE THAT THESE MODIFICATIONS TO THE ERM**  
10 **WILL LOWER AVISTA'S OPERATING RISK?**

11 **A.** The proposed modifications to the ERM represent a deferral mechanism that provides  
12 a safety net to ensure that Avista will more likely earn its authorized return on equity.  
13 As such, this mechanism mitigates Avista's operating risk and will strengthen its  
14 earnings and cash flow in support of its utility operations. Indeed, as noted on page 13  
15 of Mr. Johnson's testimony, removing the deadband and sharing bands will be viewed  
16 positively by credit and security analysts.

17 **Q. DOES THE CURRENT ERM BALANCE COMMODITY COST RECOVERY**  
18 **RISK BETWEEN THE COMPANY AND ITS CUSTOMERS?**

19 **A.** To a significant extent, yes. Indeed, the Company is able to implement hedging  
20 strategies with suppliers to help manage its commodity cost recovery risk. Mr.  
21 Johnson describes at pages 15 and 16 of his testimony how the Company implements  
22 hedging strategies to manage the full cost recovery of commodity costs, but notes that  
23 these recovery mechanisms typically do not close all open positions while rates are in  
24 effect. Hedging mechanisms reduce the risk of major increases in power supply costs  
25 due to significant increases in natural gas prices, power prices, or low hydro



1 conditions requirements for reliance on higher cost energy resources. While the  
2 Company does have some means to mitigate its commodity procurement risk,  
3 customers do not have these risk management options. Therefore, it is a reasonable  
4 balance to include a deadband in the implementation of an ERM because it provides  
5 the Company with the incentive to aggressively manage power supply costs within  
6 that deadband, for the benefit of itself and its customers. This deadband in turn  
7 provides the Company with clear parameters around its projected power costs to  
8 implement its hedging strategies and provides customers with stable ERM costs within  
9 the deadband.

10 **Q. HAVE OTHER JURISDICTIONS EXPERIENCED A REDUCTION IN RISK**  
11 **AND A LOWER RETURN ON EQUITY BY IMPLEMENTATION OF**  
12 **SIMILAR MECHANISM?**

13 **A.** Yes. Other jurisdictions have recognized that such earnings stabilization mechanisms  
14 do reduce risk to investors. Importantly, these same regulatory commissions  
15 recognize that a recovery mechanism does not eliminate risk, but simply shifts risk  
16 from investors to customers. Other commissions that have made return on equity  
17 adjustments to reflect reduced operating risk by the implementation of similar  
18 programs include the following:

- 19 • In an order concerning Portland General Electric Company (“PGE”), the Oregon  
20 Public Utility Commission (“OPUC”), in Order No. 09-020, January 22, 2009,  
21 approved a sales normalization adjustment (“SNA”) which created a balancing  
22 account applied to residential and non-residential customers. The SNA compared  
23 actual weather adjusted distribution, transmission, and fixed generation revenues  
24 with those that would be collected with a fixed per customer charge. The  
25 difference was accumulated in a balancing account. In that order, the OPUC found

1 that the regulatory mechanisms did shift risk to customers and reduced risk to  
2 investors. The OPUC found it appropriate to reduce PGE's return on equity by 10  
3 basis points for this risk shift.

- 4 • A similar finding was made by the Connecticut Department of Public Utility  
5 Control ("DPUC") in a Decision in Docket No. 08-12-06. In that case, the  
6 Connecticut DPUC concluded that a decoupling mechanism should not be  
7 approved; however, it did note that such a mechanism would shift the risk of cost  
8 under-recovery from the company to its customers and noted that if such a risk did  
9 take place a return on equity adjustment would be appropriate. The DPUC  
10 ultimately concluded that the decoupling proposal should be denied, and that it  
11 would be difficult to determine the appropriate level of return on equity adjustment  
12 if one were adopted.<sup>7/</sup>

13 **Q. IF THE COMMISSION MODIFIES AVISTA'S CURRENT ERM, DO YOU**  
14 **RECOMMEND AN ADJUSTMENT TO YOUR PROPOSED RETURN ON**  
15 **EQUITY?**

16 **A.** Yes. If Avista's ERM mechanism is modified as proposed by the Company, then I  
17 recommend Avista's return on equity be reduced to reflect this risk reduction created  
18 by the modified ERM. If the Commission approves the proposed modifications, then I  
19 recommend Avista's return on equity to develop an overall rate of return for its  
20 electric utility operations be reduced by 30 basis points, or from 9.40% to 9.10%. This  
21 return on equity is at the low end of my recommended range for Avista, but reflects  
22 the significant risk reduction to Avista created by the proposed modifications to the  
23 existing ERM.

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<sup>7/</sup> Application of Conn. Natural Gas Corp. for a Rate Increase, DPUC Docket No. 08-12-06, Decision at 75-76 (June 30, 2009).

1 **Q. HOW DID YOU DETERMINE AN APPROPRIATE RETURN ON EQUITY**  
2 **ADJUSTMENT TO REFLECT THE RISK REDUCTION CREATED BY THE**  
3 **PROPOSED MODIFICATIONS TO THE CURRENT ERM?**

4 **A.** I approximated an appropriate return on equity return risk reduction by reviewing the  
5 difference in market-required return available for an investment that produces a higher  
6 probability of cost recovery. This market evidence is produced by the normal bond  
7 yield spread between an “A” rated utility bond and a “Baa” rated utility bond. A  
8 utility bond rate of “A” has a greater probability of full cost recovery and meeting its  
9 debt service obligations compared to a “Baa” utility bond. For this greater cost  
10 recovery assurance, the market prices “A” rated utility bonds to produce a lower yield  
11 relative to the yield on “Baa” utility bonds. This yield spread represents fair  
12 compensation for greater cost recovery assurance.

13 As described later in my testimony and as shown on Exhibit No.\_\_(MPG-15),  
14 page 1, the average annual spread between an “A” and “Baa” utility bond yield over  
15 the last 32 years has been 42 basis points, and the spread between an “Aaa” and “Baa”  
16 corporate bond yield has been approximately 22 basis points. I think this reasonably  
17 approximates an adjustment to market-required return to reflect improved cost  
18 recovery and reduced risk.

19 However, I do not recommend the Commission approve a return on equity that  
20 is outside of my estimated range for Avista. The range between my midpoint (9.4%)  
21 and the low-end of my estimated range of 9.1% is 30 basis points. This is generally  
22 consistent with the lower risk and return indicated by utility and corporate bonds’  
23 yield spreads, but also ensures Avista’s approved return is fair and reasonable.



1 from cost of capital estimates in this case versus the last case. In Table 1 below, I  
 2 show the change in utility bond yields.

**TABLE 1**

**Capital Costs – Avista Rate Cases**

<u>Description</u>	<u>Current Case<sup>1</sup></u>	<u>Docket No.</u> <u>UE-100467</u>	<u>Yield</u> <u>Change</u>
“A” Rated Utility Bond Yields	4.03%	5.15%	1.12%
“Baa” Rated Utility Bond Yields	4.89%	5.67%	0.78%
13-Week Period Ending	08/10/2012	11/19/2010	

Source:  
<sup>1</sup>Exhibit No. \_\_\_\_ (MPG-16), page 1.

3 As shown in Table 1 above, the current market cost of debt for “A” and “Baa”  
 4 rated utility bond yields has decreased in this case relative to Avista’s last rate case.  
 5 The current “A” rated utility bond yield is approximately 1.10 percentage points lower  
 6 now than it was in Avista’s last rate case. Also, the current “Baa” utility bond yield is  
 7 approximately 0.80 percentage points lower than during Avista’s last rate case.

8 Utility bond yields have declined by approximately 0.80 to 1.10 basis points  
 9 since Avista’s last rate case. This decline in utility bond yields suggests that Avista’s  
 10 cost of capital is lower now than it was in its last rate case.

11 **Electric Utility Industry Market Outlook**

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

13 **A.** I begin my estimate of a fair return on equity for Avista by reviewing the market’s  
 14 assessment of electric utility industry investment risk, credit standing, and stock price  
 15 performance in general. I used this information to get a sense of the market’s

1 perception of the risk characteristics of electric utility investments in general, which is  
2 then used to produce a refined estimate of the market's return requirement for  
3 assuming investment risk similar to Avista's utility operations.

4 Based on the assessments described below, I find the credit rating outlook of  
5 the industry to be strong and supportive of the industry's financial integrity, and  
6 electric utilities' stocks have exhibited strong price performance over the last several  
7 years.

8 Based on this review of credit outlooks and stock price performance, I  
9 conclude that the market has again embraced the electric utility industry as a  
10 safe-haven investment, and views utility equity and debt investments as low-risk  
11 securities.

12 **Q. PLEASE DESCRIBE THE ELECTRIC UTILITIES' CREDIT RATING**  
13 **OUTLOOK.**

14 **A.** Electric utilities' credit rating outlook has improved over the recent past and is now  
15 stable. Standard & Poor's ("S&P") recently provided an assessment of the credit rating  
16 of U.S. electric utilities. S&P's commentary included the following:

17 Standard & Poor's Ratings Services' believes the outlook for credit  
18 quality in the U.S. investor-owned regulated electric, gas, and water  
19 utility sectors for the remainder of 2012 and into 2013 will remain  
20 stable. These companies have weathered the challenging economic  
21 environment of the past few years with little lasting effect on their  
22 financial risk profiles. The essential service that utilities provide and  
23 the rate-regulated nature of the business enable them to generate  
24 reasonably steady and predictable cash flows through timely recovery  
25 of their costs from ratepayers, despite economic conditions and  
26 ongoing heavy investment needs. As a result, we expect their credit  
27 quality to remain stable.

28 \* \* \*

1                   **Industry Credit Outlook**

2                   Liquidity is adequate for most utilities. Investor appetite for utility debt  
3                   remains healthy, with deals continuing to be oversubscribed. The  
4                   companies' near-term debt maturities appear manageable and we think  
5                   they will likely refinance these with new debt or borrowings under  
6                   revolving credit facilities. Credit fundamentals indicate that most, if  
7                   not all, utilities should continue to have ample access to funding  
8                   sources and credit. Some have issued common stock to partly fund  
9                   construction expenditures, which has helped to support capital structure  
10                  balance. Additionally, many companies are accessing short-term credit  
11                  markets through commercial paper programs at very low rates.  
12                  Liquidity is an industry strength and has been improving, and banks are  
13                  indicating a willingness to lengthen the terms of credit facilities out as  
14                  far as five years in more and more cases. U.S. regulated utilities have  
15                  not been significantly hurt by turbulence in the global financial  
16                  markets.<sup>10/</sup>

17                  Similarly, Fitch states:

18                   **Electric Utilities: Stable**

19                  Fitch's Outlook for the electric utility sector in 2012 remains stable.  
20                  The sector benefits from low interest rates, modest inflationary  
21                  pressures, open capital markets, and low natural gas and power prices.  
22                  Fitch expects these conditions to persist into 2013.

23                  The favorable funding environment helps to offset any stress that  
24                  would otherwise result during an extended period of high projected  
25                  capital investment. Capex is expected to remain elevated, increasing  
26                  5%–6% over 2011 levels.<sup>11/</sup>

27                  *Value Line* also continues to characterize utility stock investments as a safe haven,  
28                  even though it notes that investors are now willing to accept more risk:

29                   **Conclusion**

30                  The broader market averages have significantly outperformed the  
31                  Electric Utility Industry thus far in 2012. This represents quite a  
32                  reversal from last year when investors flocked to utility stocks, seeking  
33                  safe havens from heightened volatility in other sectors. As economic  
34                  fears have subsided, the investment community has appeared to

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<sup>10/</sup>                  Standard & Poor's RatingsDirect on the Global Credit Portal: "Industry Economic And Ratings Outlook: U.S. Regulated Utilities Will Likely Stay On A Stable Trajectory For The Rest Of 2012 And Into 2013," July 17, 2012 at 2, 5-6 (emphasis added).

<sup>11/</sup>                  FitchRatings: "2012 Outlook: Utilities, Power, and Gas," December 5, 2011 at 10.

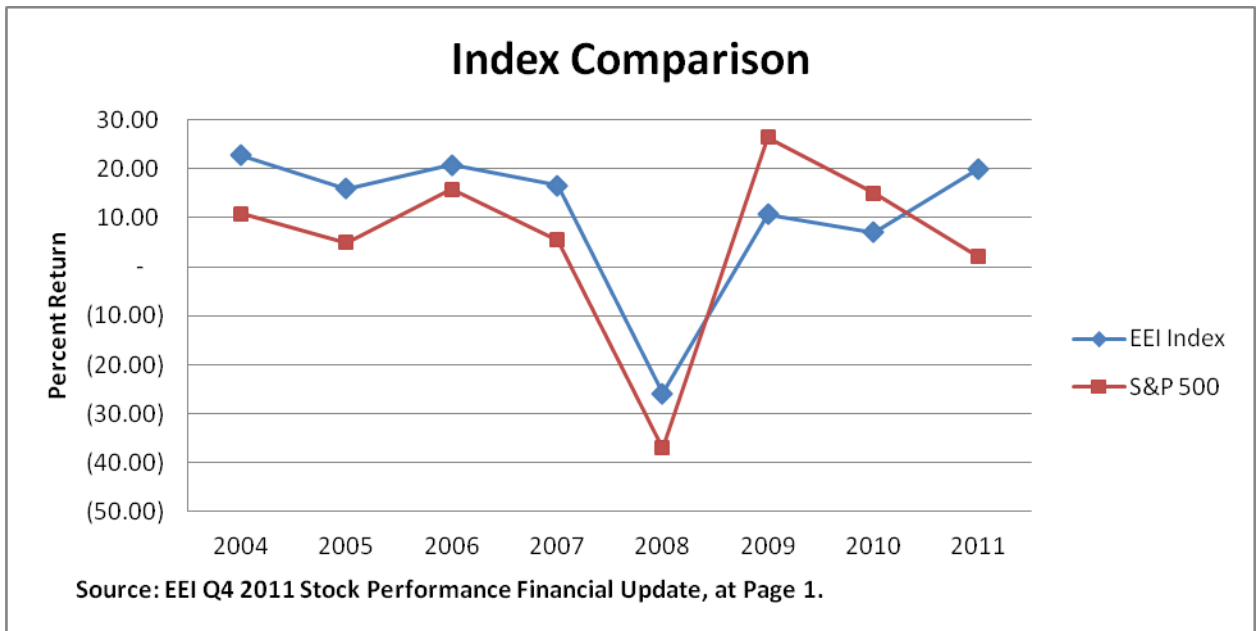
1 become more venturesome with its stock picks, which may be  
2 contributing to the utility underperformance.<sup>12/</sup>

3 The Edison Electric Institute (“EEI”) also opined as follows:

4 There was little change during 2011 in the industry’s long-term  
5 outlook. Many regulated utilities are engaged in capital spending  
6 programs that should, according to Wall Street analysts, help drive  
7 slow but steady earnings growth over the next several years. New EPA  
8 regulations may boost capex by 30% in the years ahead, relative to  
9 EEI’s latest capex survey estimates.<sup>13/</sup>

10 **Q. PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE**  
11 **OVER THE LAST SEVERAL YEARS.**

12 **A.** As shown in the graph below, the EEI has recorded electric utility stock price  
13 performance compared to the market. The EEI data shows that its Electric Utility  
14 Index has outperformed the market, with a few exceptions, triggered by the recent  
15 state of the economic environment.



<sup>12/</sup> Value Line Investment Survey, May 25, 2012 at 137 (emphasis added).

<sup>13/</sup> EEI Q4 2011 Stock Performance at 1.



1           During 2009 and 2010, the EEI Index underperformed the market, which is not  
2 unusual for stocks that are considered “safe havens” during periods of market  
3 turbulence.

4           In 2011, the EEI Index outperformed the market. EEI states the following:

5           **Commentary**

6           The EEI Index produced a positive 20% return during 2011, its  
7 strongest annual gain since 2006, outperforming the broad market after  
8 two consecutive years of underperformance as stocks rebounded from  
9 the lows reached during 2008 financial crisis.

10           \* \* \*

11           The strength of the EEI Index in 2011 is no surprise, highlighting the  
12 industry’s traditional role as a defensive investment following its  
13 reemphasis in recent years of core regulated businesses with slow but  
14 predictable earnings growth and steady dividends. In fact, the  
15 industry’s average dividend yield exceeded 4% during the year, leading  
16 that of all other U.S. business sectors.<sup>14/</sup>

17           **Avista Investment Risk**

18           **Q. PLEASE DESCRIBE THE MARKET’S ASSESSMENT OF THE**  
19           **INVESTMENT RISK OF AVISTA.**

20           **A.** The market assessment of Avista’s investment risk is best described by credit rating  
21 analysts’ reports. Avista’s current senior secured credit ratings from S&P and  
22 Moody’s are “A-” and “A3,” respectively. The Company’s corporate credit ratings  
23 from S&P and Moody’s are “BBB” and “Baa2,” respectively.

24           S&P specifically stated:

25           **Rationale**

26           The 'BBB' rating on Spokane, Wash.-based Avista Corp. reflects an  
27           "excellent" business risk profile and an "aggressive" financial risk  
28           profile under Standard & Poor's Ratings Services' corporate risk profile  
29           matrix. The business risk profile reflects our view of Avista's stable

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<sup>14/</sup>           Id., at 1, 4-5.

1 regulated electric and gas utility operations with low rates. Regulated  
2 businesses operate in the near absence of competition with regulated  
3 authorized returns. The company's primary risks are the electric utility's  
4 exposure to replacement power costs (particularly in low-water years  
5 for its hydrogeneration, when it requires more power, which becomes  
6 more expensive) and recovery of utility spending in a timely manner;  
7 its fuel and purchased-power mechanisms allow it to mitigate the  
8 former. The company's management of regulatory relationships in its  
9 three jurisdictions, in addition to its strategic focus on regulated utility  
10 operations, is a crucial tenet of the excellent business profile.<sup>15/</sup>

11 **Avista's Proposed Capital Structure**

12 **Q. WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE**  
13 **TO DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC**  
14 **OPERATIONS IN THIS PROCEEDING?**

15 **A.** Avista's proposed capital structure, as supported by Avista witness Mr. Mark T. Thies,  
16 is shown below in Table 2.

<b><u>Description</u></b>	<b><u>Percent of</u></b> <b><u>Total Capital</u></b>
Total Debt	51.6%
Common Equity	<u>48.4%</u>
Total Regulatory Capital Structure	100.0%

Source: Exh. No. (MTT-1T) at 26 (Thies).

17 **Q. HOW DID THE COMPANY DEVELOP ITS PROPOSED CAPITAL**  
18 **STRUCTURE?**

19 **A.** The Company is proposing a projected December 31, 2012 capital structure. This  
20 capital structure is based on the Company's actual 2011 capital structure as filed in

<sup>15/</sup> *Standard & Poor's RatingsDirect on the Global Credit Portal: "Avista Corp.," July 19, 2012 at 2 (emphasis added).*

1 Avista's 10-K, adjusted for projected equity issuance and debt related to subsidiary  
2 transactions.

3 **Q. IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE REASONABLE?**

4 **A.** No. Avista's proposed capital structure reflects common equity investments  
5 supporting non-utility assets. Avista's balance sheet reflects significant investments in  
6 subsidiary companies and non-utility investments. Avista removed the short-term debt  
7 and some common equity capital related to its subsidiary companies from its proposed  
8 capital structure. However, it did not remove all of the common equity capital  
9 supporting its non-regulated investments from its regulatory capital structure.

10 Avista did remove approximately \$35 million of common equity to coincide  
11 with its removal of affiliate short-term debt. However, Avista has significantly more  
12 common equity invested in non-regulated affiliates than \$35 million. Hence, as shown  
13 on my Exhibit No.\_\_(MPG-3), I removed all common equity associated with net  
14 non-utility property and investments in subsidiary companies. This resulted in  
15 common equity allocated in non-regulated operations of approximately \$90.4 million.  
16 \$35 million of this was already included by Avista in its adjustments to common  
17 equity in Mr. Thies's testimony. Hence, my common equity adjustment removes  
18 another \$55.4 million from the common equity supporting utility operations.

19 **Q. PLEASE DESCRIBE YOUR PROPOSED ADJUSTMENT TO AVISTA'S**  
20 **CAPITAL STRUCTURE.**

21 **A.** I propose to remove the common equity supporting non-utility investments from  
22 Avista's proposed capital structure as recorded on Avista's FERC Form 3-Q balance  
23 sheet as of March 31, 2012, that are non-utility related. These non-utility investments  
24 include net non-utility property and investments in subsidiary companies, and other

1 investments. The amount of these investments has been relatively stable through the  
2 last several years, and I assume that they will continue to be stable through the end of  
3 the test year. Removing this amount of equity investments from the Company's  
4 proposed capital structure, will reduce the amount of common equity to total capital  
5 ratio for the ratemaking capital structure.

6 **Q. WHAT CAPITAL STRUCTURE DO YOU PROPOSE BE USED TO SET**  
7 **RATES IN THIS PROCEEDING?**

8 **A.** As shown in Exhibit No.\_\_(MPG-4), my proposed capital structure reflects Avista's  
9 debt and equity capital supporting its regulated operations. The capital structure is  
10 consistent with Avista's capital structure approved in Docket No. UE-100467.<sup>16/</sup>

11 I recommend the capital structure weights shown below in Table 3 be used to  
12 develop Avista's overall rate of return.

<b><u>Description</u></b>	<b><u>Percent of Total Capital</u></b>
Total Debt	52.7%
Common Equity	<u>47.3%</u>
Total Regulatory Capital Structure	100.0%

Source: Exh. No.\_\_(MPG-3).

13 **Q. WILL THIS CAPITAL STRUCTURE AND YOUR RETURN ON EQUITY**  
14 **SUPPORT AVISTA'S FINANCIAL INTEGRITY AND ACCESS TO**  
15 **CAPITAL?**

16 **A.** Yes. I provide a full review of my recommended rate of return, including return on  
17 equity and proposed capital structure and its ability to support credit metrics consistent

<sup>16/</sup> WUTC Docket Nos. UE-100467/UG-100468, Order 07 ¶¶ 8, 58; Settlement Stipulation at 5.

1 with Avista’s strong investment grade credit rating. As shown below, my proposed  
2 overall rate of return will support Avista’s financial integrity and access to capital.

3 **Return on Equity**

4 **Q. PLEASE DESCRIBE WHAT IS MEANT BY A “UTILITY’S COST OF**  
5 **COMMON EQUITY.”**

6 **A.** A utility’s cost of common equity is the return investors require on an investment in  
7 the utility. Investors expect to achieve their return requirement from receiving  
8 dividends and stock price appreciation.

9 **Q. PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**  
10 **REGULATED UTILITY’S COST OF COMMON EQUITY.**

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

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

20 **Q. PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE**  
21 **THE COST OF COMMON EQUITY FOR AVISTA.**

22 **A.** I have used several models based on financial theory to estimate Avista’s cost of  
23 common equity. These models are: (1) a constant growth Discounted Cash Flow  
24 (“DCF”) model using consensus analysts’ growth rate projections; (2) a constant  
25 growth DCF using sustainable growth rate estimates; (3) a multi-stage growth DCF

1 model; (4) a Risk Premium model; and (5) a Capital Asset Pricing Model (“CAPM”).

2 I have applied these models to a group of publicly traded utilities that I have

3 determined share investment risk similar to Avista’s.

4 **Q. HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN**  
5 **INVESTMENT RISK TO AVISTA TO ESTIMATE ITS CURRENT MARKET**  
6 **COST OF EQUITY?**

7 **A.** I relied on the same utility proxy group used by Avista witness Dr. William Avera to  
8 estimate Avista’s return on equity. However, I excluded Ameren Corp. because its  
9 consensus analyst growth rate was negative, likely due to concern at the merchant  
10 generation units.

11 **Q. HOW DOES THE PROXY GROUP INVESTMENT RISK COMPARE TO**  
12 **AVISTA’S INVESTMENT RISK?**

13 **A.** The proxy group is shown in Exhibit No.\_\_(MPG-4). This proxy group has an  
14 average corporate credit rating from S&P of “BBB,” which is identical to S&P’s  
15 corporate credit rating for Avista. The proxy group’s corporate credit rating from  
16 Moody’s is “Baa2,” which is also identical to Avista’s corporate credit rating from  
17 Moody’s. The proxy group has comparable investment risk to Avista.

18 The proxy group has an average common equity ratio of 46.4% (including  
19 short-term debt) from SNL Financial (“SNL”) and 49.4% (excluding short-term debt)  
20 from *Value Line* in 2011. The proxy group’s common equity ratio is almost identical  
21 to my proposed common equity ratio of 47.3%, including short-term debt.

22 I also compared Avista’s business risk to the business risk of the proxy group  
23 based on S&P’s ranking methodology. Avista has an S&P business risk profile of  
24 “Excellent,” which is identical to the S&P business risk profile of the proxy group.

1 The S&P business risk profile score indicates that Avista’s business risk is comparable  
2 to that of the proxy group.<sup>17/</sup>

3 Based on these proxy group selection criteria, I believe that my proxy group  
4 reasonably approximates the investment risk of Avista, and can be used to estimate a  
5 fair return on equity for Avista.

6 **Discounted Cash Flow Model**

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

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

11 
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \dots \frac{D_\infty}{(1+K)^\infty} \text{ where} \quad \text{(Equation 1)}$$
  
12

13  $P_0$  = Current stock price  
14  $D$  = Dividends in periods 1 -  $\infty$   
15  $K$  = Investor’s required return

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

19 
$$K = D_1/P_0 + G \quad \text{(Equation 2)}$$

20  $K$  = Investor’s required return  
21  $D_1$  = Dividend in first year  
22  $P_0$  = Current stock price  
23  $G$  = Expected constant dividend growth rate

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<sup>17/</sup> S&P ranks the business risk of a utility company as part of its corporate credit rating review. S&P considers total investment risk in assigning bond ratings to issuers, including utility companies. In analyzing total investment risk, S&P considers both the business risk and the financial risk of a corporate entity, including a utility company. S&P’s business risk profile score is based on a six-notch credit rating starting with “Vulnerable” (highest risk) to “Excellent” (lowest risk). The business risk of most utility companies falls within the lowest risk category, “Excellent,” or the category one notch lower (more risk), “Strong.” *Standard & Poor’s: “Criteria Methodology: Business Risk/Financial Risk Matrix Expanded,”* May 27, 2009.

1 Equation 2 is referred to as the annual “constant growth” DCF model.

2 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF**  
3 **MODEL.**

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

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

8 **A.** I relied on the average of the weekly high and low stock prices of the utilities in the  
9 proxy group over a 13-week period ending on August 10, 2012. An average stock  
10 price is less susceptible to market price variations than a spot price. Therefore, an  
11 average stock price is less susceptible to aberrant market price movements, which may  
12 not be reflective of the stock’s long-term value.

13 A 13-week average stock price reflects a period that is still short enough to  
14 contain data that reasonably reflect current market expectations, but the period is not  
15 so short as to be susceptible to market price variations that may not reflect the stock’s  
16 long-term value. In my judgment, a 13-week average stock price is a reasonable  
17 balance between the need to reflect current market expectations and the need to  
18 capture sufficient data to smooth out aberrant market movements.

19 **Q. WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF**  
20 **MODEL?**

21 **A.** I used the most recently paid quarterly dividend, as reported in *The Value Line*  
22 *Investment Survey*.<sup>18/</sup> This dividend was annualized (multiplied by 4) and adjusted for  
23 next year’s growth to produce the  $D_1$  factor for use in Equation 2 above.

---

<sup>18/</sup> *The Value Line Investment Survey*, May 25, June 22, and August 3, 2012.



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

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

8 As predictors of future returns, security analysts' growth estimates have been  
9 shown to be more accurate than growth rates derived from historical data.<sup>19/</sup> That is,  
10 assuming the market generally makes rational investment decisions, analysts' growth  
11 projections are more likely to influence observable stock prices than growth rates  
12 derived only from historical data.

13 For my constant growth DCF analysis, I have relied on a consensus, or mean,  
14 of professional security analysts' earnings growth estimates as a proxy for investor  
15 consensus dividend growth rate expectations. I used the average of analysts' growth  
16 rate estimates from three sources: Zacks, SNL, and Reuters. All such projections  
17 were available on August 14, 2012, and all were reported online.

18 Each consensus growth rate projection is based on a survey of security  
19 analysts. It is problematic as to whether any particular analyst's forecast is more  
20 representative of general market expectations. The consensus estimate is a simple  
21 arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A  
22 simple average of the growth forecasts gives equal weight to all surveyed analysts'

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<sup>19/</sup> 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 projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a  
2 good proxy for market consensus expectations.

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

5 **A.** The growth rates I used in my DCF analysis are shown in Exhibit No.\_\_\_\_(MPG-5).  
6 The average growth rate for my proxy group is 4.43%.

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

9 **A.** As shown in Exhibit No.\_\_\_\_(MPG-6), the average and median constant growth DCF  
10 returns for my proxy group are 8.75% and 8.50%, respectively.

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

13 **A.** Yes. The three- to five-year growth rates are in line with the long-term sustainable  
14 growth rate. Therefore, I believe my constant growth DCF analysis using analysts'  
15 three- to five-year growth rates reflects reasonable growth outlooks and the DCF  
16 results are also reasonable. However, I also considered other DCF methodologies in  
17 order to enhance the information available to accurately estimate Avista's current  
18 market return on common equity.

19 **Sustainable Growth DCF**

20 **Q. PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE**  
21 **LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF**  
22 **MODEL.**

23 **A.** A sustainable growth rate is based on the percentage of the utility's earnings that is  
24 retained and reinvested in utility plant and equipment. These reinvested earnings  
25 increase the earnings base (rate base). Earnings grow when plant funded by reinvested

1 earnings is put into service, and the utility is allowed to earn its authorized return on  
2 such additional rate base investment.

3 The internal growth methodology is tied to the percentage of earnings retained  
4 in the company and not paid out as dividends. The earnings retention ratio is 1 minus  
5 the dividend payout ratio. As the payout ratio declines, the earnings retention ratio  
6 increases. An increased earnings retention ratio will fuel stronger growth because the  
7 business funds more investments with retained earnings. The payout ratios of the  
8 proxy group are shown on my Exhibit No.\_\_(MPG-7). These dividend payout ratios  
9 and earnings retention ratios then can be used to develop a sustainable long-term  
10 earnings retention growth rate. A sustainable long-term retention ratio will help gauge  
11 whether analysts' current three- to five-year growth rate projections can be sustained  
12 over an indefinite period of time.

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

16 As shown in Exhibit No.\_\_(MPG-8), page 1, the average sustainable growth  
17 rate for the proxy group using this internal growth rate model is 4.78%.

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

20 **A.** A DCF estimate based on these sustainable growth rates is developed in Exhibit  
21 No.\_\_(MPG-9). As shown there, a sustainable growth DCF analysis produces proxy  
22 group average and median DCF results of 9.12% and 8.52%, respectively.

1 **Multi-Stage Growth DCF Model**

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

3 **A.** Yes. My first constant growth DCF is based on consensus analysts' growth rate  
4 projections, so it is a reasonable reflection of rational investment expectations over the  
5 next three to five years. The limitation on the constant growth DCF model is that it  
6 cannot reflect a rational expectation that a period of high/low short-term growth can be  
7 followed by a change in growth to a rate that is more reflective of long-term  
8 sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect  
9 this outlook of changing growth expectations.

10 **Q. WHEN DO YOU BELIEVE SHORT-TERM GROWTH RATES CHANGE**  
11 **OVER TIME?**

12 **A.** Analyst projected growth rates over the next three to five years will change as utility  
13 earnings growth outlooks change. Utility companies typically go through cycles in  
14 making investments in their systems. When utility companies are making large  
15 investments, their rate base grows rapidly, which accelerates their earnings growth.  
16 Once a major construction cycle is completed or levels off, growth in the utility rate  
17 base slows, and its earnings slow from an abnormally high three- to five-year growth  
18 rate period to a lower sustainable growth rate.

19 As major construction cycles extend over longer periods of time, even with an  
20 accelerated construction program, the growth rate of the utility will slow simply  
21 because it is adding to a larger rate base, and the utility has limited human and capital  
22 resources available to expand its construction program. Hence, the three- to five-year  
23 growth rate projection should be used as a long-term sustainable growth rate but not  
24 without making a reasonable informed judgment to determine whether it considers the

1 current market environment, the industry, and whether the three- to five-year growth  
2 outlook is sustainable.

3 **Q. CAN A UTILITY'S ELEVATED THREE- TO FIVE-YEAR GROWTH RATE**  
4 **CONTINUE INDEFINITELY IF ITS CAPITAL PROGRAM CONTINUES**  
5 **OVER AN INDEFINITE PERIOD OF TIME?**

6 **A.** No, because the growth rate will slow over time, even if the utility's capital program  
7 remains at an elevated level. This is illustrated in Table 4 below. Consider a  
8 hypothetical company with a beginning plant-in-service of \$1 million and an elevated  
9 capital expenditure program of \$100,000 (10% of total capital). Capital expenditures  
10 stay elevated but also grow at the rate of inflation of 2% over the next 10 years. This  
11 company has depreciation expense based on a rate of gross plant of 3.0%.

12 In this example, the first year, the capital expenditures less depreciation  
13 expense will grow plant-in-service from \$1 million up to \$1,070,000—a 7% plant  
14 growth. In this example, earnings in the year would begin at an assumed 10% rate of  
15 return on investment, or \$103,500. This represents a 10% return on average plant  
16 investment for the year. Now assume that the capital improvement program  
17 continues, and plant-in-service increases from the initial \$1 million up to \$1,139,900  
18 by the end of year 2. In this second year, earnings would increase to \$110,495, a 6.8%  
19 growth in earnings relative to year 1. Each year, the embedded plant-in-service  
20 increases by capital improvements less depreciation expense. As a result, the growth  
21 in earnings slows because a percent change in plant-in-service starts to slow as the  
22 beginning of the year plant-in-service number increases. That is, the denominator in  
23 the growth equation increases with a relatively flat but elevated level of capital  
24 improvements resulting in a decreasing growth in earnings. With this continued level  
25 of elevated capital improvement offset by depreciation expense, the growth rate of

1 earnings starts at around 6.8% in the beginning of the growth period, declines to  
2 around 5.3% after five years of growth, and further declines to around 4.2% after  
3 10 years of elevated capital investment spending. Hence, while the company  
4 maintains an elevated level of capital spending throughout the forecast period, the  
5 earnings growth rate nevertheless declines from 6.8% at the beginning of the spending  
6 period, down to 4.2% after 10 years of elevated capital spending. Again, this occurs  
7 because the denominator in the growth equation increases as plant investment is made  
8 and plant-in-service increases. As a result, elevated capital expenditures have a lower  
9 growth impact on a larger capital base after years of elevated capital spending relative  
10 to the beginning of the capital spending program.

**TABLE 4**

**Growth in Plant In-Service and Earnings**

<u>Year</u>	<u>Beginning of Year Plant-in-Service</u> (1)	<u>Capital Improvement</u> (2)	<u>Depreciation Expense</u> (3)	<u>End of Year Plant-in-Service</u> (4)	<u>Avg Year Plant</u> (5)	<u>ROE</u> (6)	<u>Earnings</u> (7)	<u>Annual Earnings Growth Rate</u> (8)
0	\$1,000,000	\$100,000	\$30,000	\$1,070,000	\$1,035,000	10.0%	\$103,500	
1	\$1,070,000	\$102,000	\$32,100	\$1,139,900	\$1,104,950	10.0%	\$110,495	6.8%
2	\$1,139,900	\$104,040	\$34,197	\$1,209,743	\$1,174,822	10.0%	\$117,482	6.3%
3	\$1,209,743	\$106,121	\$36,292	\$1,279,572	\$1,244,657	10.0%	\$124,466	5.9%
4	\$1,279,572	\$108,243	\$38,387	\$1,349,428	\$1,314,500	10.0%	\$131,450	5.6%
5	\$1,349,428	\$110,408	\$40,483	\$1,419,353	\$1,384,390	10.0%	\$138,439	5.3%
6	\$1,419,353	\$112,616	\$42,581	\$1,489,388	\$1,454,371	10.0%	\$145,437	5.1%
7	\$1,489,388	\$114,869	\$44,682	\$1,559,575	\$1,524,482	10.0%	\$152,448	4.8%
8	\$1,559,575	\$117,166	\$46,787	\$1,629,954	\$1,594,765	10.0%	\$159,476	4.6%
9	\$1,629,954	\$119,509	\$48,899	\$1,700,565	\$1,665,259	10.0%	\$166,526	4.4%
10	\$1,700,565	\$121,899	\$51,017	\$1,771,447	\$1,736,006	10.0%	\$173,601	4.2%

Notes:

Column 2: Escalation Rate 2.00%.

Column 3: Depr Rate 3.00%.

Column 4 = Column 1 plus Column 2 less Column 3.

Column 5 = (Column 1 + Column 4)/2.

Column 7 = Column 5 \* Column 6.

Column 8 = Column 7 N ÷ Column 7 N-1 (N is the Year) less 1.

1 **Q. IS THE USE OF A MULTI-STAGE DCF MODEL SUPPORTED IN**  
 2 **ACADEMIC AND INDUSTRY LITERATURE?**

3 **A.** Yes. In his book *New Regulatory Finance*, Dr. Roger Morin states the following:

4 Dividends need not be, and probably are not, constant from period to  
 5 period. Moreover, there are circumstances where the standard DCF  
 6 model cannot be used to assess investor return requirements. For  
 7 example, if a utility company is in the process of altering its dividend  
 8 payout policy and dividends are not expected to grow at the same rate  
 9 as earnings during the transition period, the standard DCF model is  
 10 inapplicable. This is because the expected growth in stock price has to  
 11 be different from that of dividends, earnings, and book value if the  
 12 market price is to converge toward book value.

13 \* \* \*

1 A Non-Constant Growth DCF model is appropriate whenever the  
2 growth rate is expected to change, and the only way to produce a  
3 change in the forecast payout ratio is by introducing an intermediate  
4 growth rate that is different from the long-term growth rate, as in the  
5 previous example.<sup>20/</sup>

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

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

12 For the short-term growth period, I relied on the consensus analysts' growth  
13 projections described above in relationship to my constant growth DCF model. For  
14 the transition period, the growth rates were reduced or increased by an equal factor,  
15 which reflects the difference between the analysts' growth rates and the United States  
16 Gross Domestic Product ("U.S. GDP") growth rate. For the long-term growth period,  
17 I assumed each company's growth would converge to the maximum sustainable  
18 growth rate for a utility company as proxied by the consensus analysts' projected  
19 growth for the U.S. GDP of 4.9%.

20 **Q. WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR**  
21 **THE MAXIMUM SUSTAINABLE GROWTH RATE FOR A UTILITY?**

22 **A.** Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the  
23 overall economy. Utilities' earnings/dividend growth is created by increased utility  
24 investment or rate base. Such investment, in turn, is driven by service area economic  
25 growth and demand for utility service. In other words, utilities invest in plant to meet

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<sup>20/</sup> *New Regulatory Finance*, Roger A. Morin, PhD, 2006 Public Utilities Reports, Inc., Vienna, Virginia, pp. 264 and 267.



1 sales demand growth, and sales growth, in turn, is tied to economic growth in their  
2 service areas. The Energy Information Administration (“EIA”) has observed that  
3 utility sales growth is less than U.S. GDP growth, as shown in Exhibit  
4 No.\_\_(MPG-10). Utility sales growth has lagged behind GDP growth for more than  
5 a decade. As a result, nominal GDP growth is a very conservative, albeit overstated,  
6 proxy for electric utility sales growth, rate base growth, and earnings growth.  
7 Therefore, GDP growth is a conservative proxy for the highest sustainable long-term  
8 growth rate of a utility.

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

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

15 The constant growth model is most appropriate for mature companies  
16 with a stable history of growth and stable future expectations.  
17 Expected growth rates vary somewhat among companies, but dividends  
18 for mature firms are often expected to grow in the future at about the  
19 same rate as nominal gross domestic product (real GDP plus  
20 inflation).<sup>21/</sup>

21 **Q. HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH**  
22 **RATE THAT REFLECTS THE CONSENSUS OF THE MARKET?**

23 **A.** I relied on the consensus analysts’ projections of long-term GDP growth. *The Blue*  
24 *Chip Financial Forecasts* publishes consensus economists’ GDP growth projections  
25 twice a year. These consensus analysts’ GDP growth outlooks are the best available  
26 measure of the market’s assessment of long-term GDP growth. These analyst

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<sup>21/</sup> “Fundamentals of Financial Management,” Eugene F. Brigham and Joel F. Houston, Eleventh Edition  
2007, Thomson South-Western, a Division of Thomson Corporation at 298.

1 projections reflect all current outlooks for GDP, as reflected in analyst projections, and  
2 are likely the most influential on investors' expectations of future growth outlooks.  
3 The consensus economists' published GDP growth rate outlook is 5.1% to 4.7% over  
4 the next 10 years.<sup>22/</sup>

5 Therefore, I propose to use the consensus economists' projected 5- and 10-year  
6 average GDP consensus growth rate of 4.9%, as published by *Blue Chip Financial*  
7 *Forecasts*, as an estimate of long-term sustainable growth. *Blue Chip Financial*  
8 *Forecasts'* projections provide real GDP growth projections of 2.8% and 2.5%, and  
9 GDP inflation of 2.2% and 2.1%<sup>23/</sup> over the 5-year and 10-year projection periods,  
10 respectively. This consensus GDP growth forecast represents the most likely views of  
11 market participants because it is based on published consensus economist projections.

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

14 **A.** Yes, and these sources corroborate my consensus analysts' projections. The U.S. EIA  
15 in its Annual Energy Outlook projects real GDP out until 2035. In its 2011 Annual  
16 Report, the EIA projects real GDP through 2035 to be in the range of 2.1% to 3.2%,  
17 with a midpoint or reference case of 2.7%.<sup>24/</sup>

18 Also, the Congressional Budget Office ("CBO") makes long-term economic  
19 projections. The CBO is projecting real GDP growth of 3.3% to 2.4% during the next  
20 5 and 10 years, respectively, with GDP price inflation of 1.9% to 2.0%.<sup>25/</sup> The CBO's  
21 real GDP projections are higher than the consensus, but its GDP inflation is lower than  
22 the consensus economists.

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<sup>22/</sup> *Blue Chip Financial Forecasts*, June 1, 2012 at 14.

<sup>23/</sup> GDP growth is the product of real and inflation GDP growth.

<sup>24/</sup> *DOE/EIA Annual Energy Outlook 2011 With Projections to 2035*, April 2011 at 58.

<sup>25/</sup> *CBO: The Budget and Economic Outlook: Fiscal Years 2012 to 2022*, January 2012 at 128.

1           The real GDP and nominal GDP growth projections made by the U.S. EIA and  
2 those made by the CBO support the use of the consensus analyst 5-year and 10-year  
3 projected GDP growth outlooks as a reasonable market assessment of long-term  
4 prospective GDP growth.

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

7 **A.**   I relied on the same 13-week stock price and the most recent quarterly dividend  
8 payment data discussed above. For stage one growth, I used the consensus analysts'  
9 growth rate projections discussed above in my constant growth DCF model. The  
10 transition period begins in year 6 and ends in year 10. For the long-term sustainable  
11 growth rate starting in year 11, I used 4.9%, the average of the consensus economists'  
12 5-year and 10-year projected nominal GDP growth rates.

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

15 **A.**   As shown in Exhibit No.\_\_(MPG-11), the average and median DCF returns on equity  
16 for my proxy group are 9.12% and 9.23%, respectively.

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

18 **A.**   The results from my DCF analyses are summarized in Table 5 below:

<b>TABLE 5</b>	
<b><u>Summary of DCF Results</u></b>	
<b><u>Description</u></b>	<b><u>Estimates</u></b>
Constant Growth DCF Model (Analysts' Growth)	8.75%
Constant Growth DCF Model (Sustainable Growth)	9.12%
Multi-Stage Growth DCF Model	<u>9.12%</u>
Average	9.00%

19           I conclude that a DCF return for Avista in this case is 9.10%.

1 **Risk Premium Model**

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

3 **A.** This model is based on the principle that investors require a higher return to assume  
4 greater risk. Common equity investments have greater risk than bonds because bonds  
5 have more security of payment in bankruptcy proceedings than common equity and  
6 the coupon payments on bonds represent contractual obligations. In contrast,  
7 companies are not required to pay dividends or guarantee returns on common equity  
8 investments. Therefore, common equity securities are considered to be more risky  
9 than bond securities.

10 This risk premium model is based on two estimates of an equity risk premium.  
11 First, I estimated the difference between the required return on utility common equity  
12 investments and U.S. Treasury bonds. The difference between the required return on  
13 common equity and the Treasury bond yield is the risk premium. I estimated the risk  
14 premium on an annual basis for each year over the period 1986 through June 2012.  
15 The common equity required returns were based on regulatory commission-authorized  
16 returns for electric utility companies. Authorized returns are typically based on expert  
17 witnesses' estimates of the contemporary investor-required return.

18 The second equity risk premium estimate is based on the difference between  
19 regulatory commission-authorized returns on common equity and contemporary  
20 "A" rated utility bond yields. I selected the period 1986 through June 2012 because  
21 public utility stocks consistently traded at a premium to book value during that period.  
22 This is illustrated in Exhibit No.\_\_(MPG-12), which shows that the market to book  
23 ratio since 1986 for the electric utility industry was consistently above 1.0. Over this  
24 period, regulatory authorized returns were sufficient to support market prices that at

1 least exceeded book value. This is an indication that regulatory authorized returns on  
2 common equity supported a utility's ability to issue additional common stock without  
3 diluting existing shares. It further demonstrates that utilities were able to access  
4 equity markets without a detrimental impact on current shareholders.

5 Based on this analysis, as shown in Exhibit No.\_\_\_\_(MPG-13), the average  
6 indicated equity risk premium over U.S. Treasury bond yields has been 5.31%. Of the  
7 27 observations, 21 indicated risk premiums fall in the range of 4.41% to 6.18%.  
8 Since the risk premium can vary depending upon market conditions and changing  
9 investor risk perceptions, I believe using an estimated range of risk premiums provides  
10 the best method to measure the current return on common equity using this  
11 methodology.

12 As shown in Exhibit No.\_\_\_\_(MPG-14), the average indicated equity risk  
13 premium over contemporary Moody's utility bond yields was 3.89% over the period  
14 1986 through June 2012. The indicated equity risk premium estimates based on this  
15 analysis primarily fall in the range of 3.03% to 4.88% over this time period.

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

20 **A.** No. Contemporary market conditions can change dramatically during the period that  
21 rates determined in this proceeding will be in effect. A relatively long period of time  
22 where stock valuations reflect premiums to book value is an indication that the  
23 authorized returns on equity and the corresponding equity risk premiums were  
24 supportive of investors' return expectations and provided utilities access to the equity  
25 markets under reasonable terms and conditions. Further, this time period is long

1 enough to smooth abnormal market movement that might distort equity risk  
2 premiums. While market conditions and risk premiums do vary over time, this  
3 historical time period is a reasonable period to estimate contemporary risk premiums.

4 The time period I use in this risk premium study is a generally accepted period  
5 to develop a risk premium study using “expectational” data. Conversely, studies have  
6 recommended that use of “actual achieved return data” should be based on very long  
7 historical time periods. The studies find that achieved returns over short time periods  
8 may not reflect investors’ expected returns due to unexpected and abnormal stock  
9 price performance. However, these short-term abnormal actual returns would be  
10 smoothed over time and the achieved actual returns over long time periods would  
11 approximate investors’ expected returns. Therefore, it is reasonable to assume that  
12 averages of annual achieved returns over long time periods will generally converge on  
13 the investors’ expected returns.

14 My risk premium study is based on expectational data, not actual returns, and,  
15 thus, need not encompass very long time periods.

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

19 **A.** The equity risk premium should reflect the relative market perception of risk in the  
20 utility industry today. I have gauged investor perceptions in utility risk today in  
21 Exhibit No.\_\_(MPG-15). On that schedule, I show the yield spread between utility  
22 bonds and Treasury bonds over the last 32 years and the first six months of 2012. As  
23 shown in this schedule, the 2011 utility bond yield spreads over Treasury bonds for  
24 “A” rated and “Baa” rated utility bonds are 1.13% and 1.65%, respectively. The  
25 utility bond yield spreads over Treasury bonds for “A” and “Baa” rated utility bonds

1 for the first six months of 2012 are 1.27% and 2.00%, respectively. The current “A”  
2 rated utility bond yield spread over Treasury bond yields is now lower than the  
3 32-year average spreads of 1.57%. However, the “Baa” rated utility spread of 2.00%  
4 is slightly higher, even though comparable to the 32-year average spread of 1.98%.

5 A current 13-week average “A” rated utility bond yield of 4.03%, when  
6 compared to the current Treasury bond yield of 2.69% as shown in Exhibit  
7 No.\_\_(MPG-16), page 1 implies a yield spread of around 1.34%. This current utility  
8 bond yield spread is lower than the 32-year average spread for “A” utility bonds of  
9 1.57%. The current spread for the “Baa” utility yields of 2.20% is slightly higher than,  
10 although comparable to, the 32-year average spread of 1.98%.

11 These utility bond yield spreads are clear evidence that the market considers  
12 the utility industry to be a relatively low risk investment and demonstrates that utilities  
13 continue to have strong access to capital.

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

16 **A.** I added a projected long-term Treasury bond yield to my estimated equity risk  
17 premium over Treasury yields. The 13-week average 30-year Treasury bond yield,  
18 ending August 10, 2012 was 2.69%, as shown in Exhibit No.\_\_(MPG-16), page 1.  
19 *Blue Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 3.40%,  
20 and a 10-year Treasury bond yield to be 2.40%.<sup>26/</sup> Using the projected 30-year bond  
21 yield of 3.40%, and a Treasury bond risk premium of 4.41% to 6.18%, as developed  
22 above, produces an estimated common equity return in the range of 7.81% (3.40% +  
23 4.41%) to 9.58% (3.40% + 6.18%). I recommend an equity risk premium of 9.58%,

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<sup>26/</sup> *Blue Chip Financial Forecasts*, August 1, 2012 at 2.

1 rounded to 9.60%, which is at the high end of the range. I believe this is appropriate  
2 given the unusually large yield spreads between Treasury bond and utility bond yields.

3 I next added my equity risk premium over utility bond yields to a current  
4 13-week average yield on “Baa” rated utility bonds for the period ending August 10,  
5 2012 of 4.89%. Adding the utility equity risk premium of 3.03% to 4.88%, as  
6 developed above, to a “Baa” rated bond yield of 4.89%, produces a cost of equity in  
7 the range of 7.92% (4.89% + 3.03%) to 9.77% (4.89% + 4.88%). Again, recognizing  
8 the unusually wide Treasury to utility bond yield spreads, I recommend a risk  
9 premium of 9.77%, rounded to 9.75%.

10 My risk premium analyses produce a return estimate in the range of 9.60% to  
11 9.75%, with a midpoint estimate of approximately 9.70%.

12 **Capital Asset Pricing Model (“CAPM”)**

13 **Q. PLEASE DESCRIBE THE CAPM.**

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

18 
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

19	$R_i$	=	Required return for stock i
20	$R_f$	=	Risk-free rate
21	$R_m$	=	Expected return for the market portfolio
22	$B_i$	=	Beta - Measure of the risk for stock

23 The stock-specific risk term in the above equation is beta. Beta represents the  
24 investment risk that cannot be diversified away when the security is held in a  
25 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific



1 risks can be eliminated by balancing the portfolio with securities that react in the  
2 opposite direction to firm-specific risk factors (e.g., business cycle, competition,  
3 product mix, and production limitations).

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

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

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

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

18 **A.** As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond  
19 yield is 3.40%.<sup>27/</sup> The current 30-year Treasury bond yield is 2.69%, as shown in  
20 Exhibit No.\_\_\_\_(MPG-16), page 1. I used *Blue Chip Financial Forecasts'* projected  
21 30-year Treasury bond yield of 3.40% for my CAPM analysis.

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<sup>27/</sup> Id.

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

3 **A.** Treasury securities are backed by the full faith and credit of the United States  
4 government, so long-term Treasury bonds are considered to have negligible credit risk.  
5 Also, long-term Treasury bonds have an investment horizon similar to that of common  
6 stock. As a result, investor-anticipated long-run inflation expectations are reflected in  
7 both common-stock required returns and long-term bond yields. Therefore, the  
8 nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a  
9 long-term bond yield is a reasonable estimate of the nominal risk-free rate included in  
10 common stock returns.

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

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

18 **A.** As shown in Exhibit No.\_\_(MPG-17), the proxy group average *Value Line* beta  
19 estimate is 0.74.

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

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

23 The forward-looking estimate was derived by estimating the expected return  
24 on the market (as represented by the S&P 500) and subtracting the risk-free rate from

1 this estimate. I estimated the expected return on the S&P 500 by adding an expected  
2 inflation rate to the long-term historical arithmetic average real return on the market.  
3 The real return on the market represents the achieved return above the rate of inflation.

4 Morningstar's *Stocks, Bonds, Bills and Inflation 2012 Classic Yearbook*  
5 publication estimates the historical arithmetic average real market return over the  
6 period 1926 to 2011 as 8.6%.<sup>28/</sup> A current consensus analysts' inflation projection, as  
7 measured by the Consumer Price Index, is 2.2%.<sup>29/</sup> Using these estimates, the  
8 expected market return is 10.99%.<sup>30/</sup> The market risk premium then is the difference  
9 between the 10.99% expected market return, and my 3.40% risk-free rate estimate, or  
10 approximately 7.60%.

11 The historical estimate of the market risk premium was also estimated by  
12 Morningstar in *Stocks, Bonds, Bills and Inflation 2012 Classic Yearbook*. Over the  
13 period 1926 through 2011, Morningstar's study estimated that the arithmetic average  
14 of the achieved total return on the S&P 500 was 11.8%,<sup>31/</sup> and the total return on  
15 long-term Treasury bonds was 6.1%.<sup>32/</sup> The indicated market risk premium is 5.7%  
16 (11.8% - 6.1% = 5.7%). The average of my market risk premium estimates is 6.7%  
17 (7.6% to 5.7%).

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

20 **A.** Morningstar's analysis indicates that a market risk premium falls somewhere in the  
21 range of 5.9% to 6.6%. My market risk premium falls in the range of 5.7% to 7.6%.

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<sup>28/</sup> Morningstar, Inc. *Ibbotson SBBI 2012 Classic Yearbook* at 84.

<sup>29/</sup> *Blue Chip Financial Forecasts*, August 1, 2012 at 2.

<sup>30/</sup>  $\{ [(1 + 0.086) * (1 + 0.022)] - 1 \} * 100$ .

<sup>31/</sup> Morningstar, Inc. *Ibbotson SBBI 2012 Classic Yearbook* at 83.

<sup>32/</sup> Id.

1 My average market risk premium of 6.7% is toward the high end of Morningstar's  
2 range.

3 Morningstar estimates a forward-looking market risk premium based on actual  
4 achieved data from the historical period of 1926 through 2011. Using this data,  
5 Morningstar estimates a market risk premium derived from the total return on large  
6 company stocks (S&P 500), less the income return on Treasury bonds. The total  
7 return includes capital appreciation, dividend or coupon reinvestment returns, and  
8 annual yields received from coupons and/or dividend payments. The income return, in  
9 contrast, only reflects the income return received from dividend payments or coupon  
10 yields. Morningstar argues that the income return is the only true risk-free rate  
11 associated with Treasury bonds and is the best approximation of a truly risk-free rate.  
12 I disagree with this assessment from Morningstar, because it does not reflect a true  
13 investment option available to the marketplace and therefore does not produce a  
14 legitimate estimate of the expected premium of investing in the stock market versus  
15 that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the  
16 reasonableness of my market risk premium estimates.

17 Morningstar's range is based on several methodologies. First, Morningstar  
18 estimates a market risk premium of 6.6% based on the difference between the total  
19 market return on common stocks (S&P 500) less the income return on Treasury bond  
20 investments. Second, Morningstar found that if the New York Stock Exchange (the  
21 "NYSE") was used as the market index rather than the S&P 500, that the market risk  
22 premium would be 6.4%, not 6.6%. Third, if only the two deciles of the largest

1 companies included in the NYSE were considered, the market risk premium would be  
2 5.9%.<sup>33/</sup>

3 Finally, Morningstar found that the 6.6% market risk premium based on the  
4 S&P 500 was influenced by an abnormal expansion of price-to-earnings (“P/E”) ratios  
5 relative to earnings and dividend growth during the period 1980 through 2001.  
6 Morningstar believes this abnormal P/E expansion is not sustainable. Therefore,  
7 Morningstar adjusted this market risk premium estimate to normalize the growth in the  
8 P/E ratio to be more in line with the growth in dividends and earnings. Based on this  
9 alternative methodology, Morningstar published a long-horizon supply-side market  
10 risk premium of 6.1%.<sup>34/</sup>

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

12 **A.** As shown in Exhibit No.\_\_\_\_(MPG-18), based on my high-end market risk premium of  
13 6.7%, a risk-free rate of 3.40%, and a beta of 0.74, my CAPM analysis produces a  
14 return of 8.36% (rounded to 8.40%).

15 **Return on Equity Summary**

16 **Q. BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**  
17 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY**  
18 **DO YOU RECOMMEND FOR AVISTA?**

19 **A.** Based on my analyses, I estimate Avista’s current market cost of equity to be 9.40%.

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<sup>33/</sup> Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Morningstar, Inc. Ibbotson SBBI 2012 Valuation Yearbook* at 54.

<sup>34/</sup> Id. at 66.

**TABLE 6**

**Return on Common Equity Summary**

<b><u>Description</u></b>	<b><u>Results</u></b>
DCF	9.10%
Risk Premium	9.70%
CAPM	8.40%

1 My recommended return on equity is the midpoint of my range of 9.10% to  
2 9.70%, based on my DCF and Risk Premium results.

3 **Financial Integrity**

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

6 **A.** Yes. I have reached this conclusion by comparing the key credit rating financial ratios  
7 for Avista’s retail cost of service in this case, adjusted for my proposed return on  
8 equity and the Company’s actual capital structure, to S&P’s benchmark financial  
9 ratios using S&P’s new credit metric ranges.

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

12 **A.** S&P publishes a matrix of financial ratios that correspond to its assessment of the  
13 business risk of the utility company and related bond rating. On May 27, 2009, S&P  
14 expanded its matrix criteria<sup>35/</sup> by including additional business and financial risk  
15 categories. Based on S&P’s most recent credit matrix, the business risk profile  
16 categories are “Excellent,” “Strong,” “Satisfactory,” “Fair,” “Weak,” and  
17 “Vulnerable.” Most electric utilities have a business risk profile of “Excellent” or

<sup>35/</sup> S&P updated its original 2007 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor’s*: “Criteria Methodology: Business Risk/Financial Risk Matrix Expanded” at 2, May 27, 2009.

1 “Strong.” The financial risk profile categories are “Minimal,” “Modest,”  
2 “Intermediate,” “Significant,” “Aggressive,” and “Highly Leveraged.” Most of the  
3 electric utilities have a financial risk profile of “Aggressive.” Avista has an  
4 “Excellent” business risk profile and an “Aggressive” financial risk profile.<sup>36/</sup>

5 **Q. PLEASE DESCRIBE S&P’S USE OF THE FINANCIAL BENCHMARK**  
6 **RATIOS 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. S&P publishes a matrix of financial  
10 ratios that defines the level of financial risk as a function of the level of business risk.

11 S&P publishes ranges for three primary financial ratios that it uses as guidance  
12 in its credit review for utility companies. The three primary financial ratio  
13 benchmarks it relies on in its credit rating process include: (1) Total Debt to Total  
14 Capital; (2) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization  
15 (“EBITDA”); and (3) Funds From Operations (“FFO”) to Total Debt.<sup>37/</sup>

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

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

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<sup>36/</sup> *Standard & Poor’s RatingsDirect on the Global Credit Portal: “Avista Corp.,” July 19, 2012 at 2*  
(emphasis added).

<sup>37/</sup> *Id.* at 4.

1 utility operations. Hence, I am attempting to determine whether my proposed rate of  
2 return will in turn support cash flow metrics, balance sheet strength, and earnings that  
3 will support an investment grade bond rating and Avista's financial integrity.

4 **Q. DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT ("OBSD")?**

5 **A.** Yes. As shown in Exhibit No.\_\_(MPG-19), page 3, the Company estimated off-  
6 balance sheet debt equivalents of \$86.8 million attributed to Avista's operating leases  
7 and purchase power agreements, which were provided in response to ICNU data  
8 request 2.5. Avista includes other off-balance sheet debt adjustments which I did not  
9 include in my analysis. Pension benefit obligations and asset retirement obligations  
10 were not included in my analysis. This factor is either reflected in Avista's cost of  
11 service, or I could not find evidence that it relates to regulated utility operations. As  
12 such, I did not include it in the metrics to judge the reasonableness of my rate of return  
13 for retail operations in Washington in this proceeding.

14 **Q. PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS**  
15 **FOR AVISTA AT A 9.40% RETURN ON EQUITY.**

16 **A.** The S&P financial metric calculations for Avista at a 9.40% return are developed on  
17 Exhibit No.\_\_(MPG-19), page 1.

18 Avista's adjusted total debt ratio is approximately 54%. This is within the  
19 "Aggressive" utility guideline range of 50% to 60%. This total debt ratio will support  
20 an investment grade bond rating.

21 As shown on Exhibit No.\_\_(MPG-19), page 1, column 1, based on an equity  
22 return of 9.40%, Avista will be provided an opportunity to produce a debt to EBITDA  
23 ratio of 4.3x. This is within S&P's "Aggressive" range of 4.0x to 5.0x. This ratio also  
24 supports an investment grade credit rating.



1 Finally, Avista’s retail operations FFO to total debt coverage at a 9.40% equity  
2 return would be 14%, which is within the “Aggressive” metric guideline range of 12%  
3 to 20%. The FFO/total debt ratio will support an investment grade bond rating.

4 At my recommended return on equity of 9.40% and the Company’s actual  
5 capital structure, Avista’s financial credit metrics are supportive of an investment  
6 grade bond rating.

7 **RESPONSE TO AVISTA WITNESS DR. WILLIAM AVERA**

8 **Q. WHAT IS AVISTA’S RETURN ON EQUITY RECOMMENDATION?**

9 **A.** Avista’s rate of return witness, Dr. Avera, recommends a return on equity of 10.9%,  
10 which is the midpoint of his recommended range of 10.2% to 11.6% after his 20 basis  
11 point adjustment for flotation costs.<sup>38/</sup>

12 **Q. HOW DID DR. AVERA DEVELOP HIS RETURN ON EQUITY RANGE?**

13 **A.** Dr. Avera developed his return on equity recommendation by applying the DCF,  
14 CAPM and RP models to a utility proxy group and a non-utility proxy group. He also  
15 used a Comparable Earnings Model (“CEM”). Dr. Avera arrived at his  
16 recommendations by reviewing Avista’s business operations, market conditions, and  
17 utility industry trends at the time of his analysis.

18 **Q. PLEASE SUMMARIZE DR. AVERA’S PROPOSED RETURN ON EQUITY**  
19 **FOR AVISTA.**

20 **A.** As shown below in Table 7, Dr. Avera estimates a return on equity in the range of  
21 10.0% to 11.4%. Dr. Avera increased his proxy group estimated return range by  
22 0.20% to account for flotation costs. However, as I will discuss in more detail below,  
23 making reasonable adjustments to Dr. Avera’s DCF, CAPM and RP studies reduces

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<sup>38/</sup> Exh. No. \_\_\_(WEA-1T) at 4 (Avera).

1 his return on equity estimate for Avista to less than 9.5%. Dr. Avera's flotation cost  
 2 return on equity adder should be rejected.

**TABLE 7**  
**Dr. Avera's ROE Analysis**

<u>Model</u>	<u>Avera Proposed</u>	<u>Adjusted</u>
DCF (Utility)	9.0% - 10.3%	9.5%
DCF (Non-Utility)	10.9% - 13.2%	Reject
<u>CAPM (Current)</u>		
Unadjusted	10.9%	8.0%
Size Adjusted	11.8%	Reject
<u>CAPM (Projected)</u>		
Unadjusted	11.2%	9.4%
Size Adjusted	12.1%	Reject
<u>Risk Premium</u>		
Current	10.3%	9.4%
Projected	11.3%	Reject
<u>Expected Earnings</u>		
2014-16	10.5%	Reject
Utility Proxy Group	10.0%	Reject
Range	10.0% - 11.4%	8.0% - 9.5%
Flotation Cost Adder	0.20%	-
Range Including Adder	10.2% - 11.6%	8.0% - 9.5%
Recommended ROE	10.9%	
Sources:		
Exh. No. ____ (WEA-1T) at 53 (Avera).		

3 **Q. WHY IS DR. AVERA'S FLOTATION COST ADJUSTMENT FLAWED?**

4 **A.** Dr. Avera's proposed 0.20% flotation cost adjustment is not based on the recovery of  
 5 prudent and reasonable Avista flotation cost expenses. Rather, as discussed at pages  
 6 50-52 of Dr. Avera's direct testimony, he derives a flotation cost adjustment based on

1 published academic literature. Because he does not show that his adjustment is based  
2 on Avista's actual and verifiable flotation expenses, however, there simply are no  
3 means of verifying whether Dr. Avera's proposal is reasonable or appropriate.

4 **Q. PLEASE DESCRIBE DR. AVERA'S DCF ANALYSIS.**

5 **A.** Dr. Avera applied the traditional DCF model to two proxy groups that he concludes  
6 have reasonably comparable risk to Avista. Based on his utility group, the DCF  
7 results yield a return in the range of 9.0% to 10.3%. Dr. Avera's non-utility group  
8 includes companies operating in various industries followed by *Value Line*. Based on  
9 this non-utility group, his DCF analysis produces a return on equity in the range of  
10 10.9% to 13.2%<sup>39/</sup>

11 **Q. DO YOU TAKE ISSUE WITH DR. AVERA'S DCF ANALYSES?**

12 **A.** Yes. I have several issues concerning his DCF analysis. First, his use of a non-utility  
13 proxy group does not reliably estimate a fair return for Avista. Therefore, the DCF  
14 results produced by his non-utility proxy group should be rejected.

15 Second, Dr. Avera simply manipulated his selection of his utility proxy group  
16 DCF estimates in order to derive the return estimates he shows for this proxy group on  
17 his Exhibit No.\_\_(WEA-5). Dr. Avera excluded many low-end cost of equity  
18 estimates that would have been retained in the study but retained the majority of his  
19 high-end estimates.

20 Third, excluding the negative growth rates, the average growth rate included in  
21 his proxy group ranged from 4.3% for the sustainable growth to 5.7% for *Value Line*.  
22 The high end of these growth rates exceed a reasonable estimate of long-term  
23 sustainable growth, and therefore inflate his DCF return estimates.

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<sup>39/</sup> Id. at 53.

1 Fourth, Dr. Avera also presented the midpoint of his results, which is another  
2 way to manipulate his results and a poor attempt to misguide the Commission's effort  
3 to award a fair return on equity for Avista that will balance the interests of  
4 shareholders and ratepayers.

5 **Q. WHY DO YOU CONSIDER DR. AVERA'S NON-UTILITY GROUP**  
6 **UNREASONABLE?**

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

16 **Q. CAN YOU PROVIDE AN EXAMPLE OF WHY DR. AVERA'S NON-UTILITY**  
17 **GROUP IS NOT A REASONABLE RISK PROXY GROUP FOR AVISTA?**

18 **A.** Yes. One criterion that Dr. Avera uses to select a comparable risk non-utility group in  
19 order to estimate Avista's return on equity, is to compare Avista's bond rating to that  
20 of the non-regulated group (see Table 2-2). While this is a reasonable method of  
21 estimating and identifying comparable proxy groups within the industry, doing it  
22 across industries is not as straightforward and not as reliable. For example, if bond  
23 ratings alone would adequately help to identify comparable risk companies across  
24 industries, then there should not be any observable clear differences in the investment  
25 cost for securities that had different bond ratings. However, the industry or

1 circumstances behind the security have a material role in the market's assessment of a  
2 fair compensation. For example, long-term U.S. Treasury bonds have a bond rating  
3 from Moody's of "Aaa." The current yield on a U.S. Treasury bond is around 2.90%.  
4 In comparison, corporate bonds with a "AAA" rating currently have costs of  
5 approximately 3.80%.<sup>40/</sup> A corporate bond is approximately 0.90% more expensive  
6 than a Treasury bond, despite the fact that it has the same bond rating.

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

19 **Q. WHAT WOULD BE THE RESULTS OF DR. AVERA'S DCF RETURN**  
20 **ESTIMATE IF THE AVERAGE WAS TAKEN OF HIS PROXY GROUP DCF**  
21 **RETURN ESTIMATES, RATHER THAN SUBJECTIVELY EXCLUDING**  
22 **CERTAIN DCF RETURN ESTIMATES?**

23 **A.** As shown on my Exhibit No.\_\_(MPG-20), excluding only the utility proxy group  
24 DCF returns produced by negative growth rates, the average DCF return ranges from

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<sup>40/</sup> *Blue Chip Financial Forecasts*, August 1, 2012 at 2.

1 approximately 8.6% to 9.7%. As such, considering all the companies in his utility  
2 proxy group DCF return studies, Dr. Avera's own DCF return estimates support a  
3 return on equity in the range of 8.6% to 9.7%.

4 **Q. HOW WILL DR. AVERA'S DCF RETURN CHANGE IF A MULTI-STAGE**  
5 **MODEL IS APPLIED?**

6 **A.** As I discussed above, the high end of his growth rate range estimates of 4.3% to 5.7%  
7 cannot be sustained indefinitely. I have applied a multi-stage DCF model to Dr.  
8 Avera's utility proxy group by using the average of his four growth rate estimates for  
9 the first stage, which includes the period from year 1 to year 5. The second stage is  
10 the transition stage from year 6 to year 10. For the third growth rate stage, which  
11 starts in year 11 to perpetuity, I used the projected average 5- to 10-year GDP growth  
12 rate of 4.9%. Applying the multi-stage DCF version to Dr. Avera's utility group  
13 yields average and median DCF returns of 9.4% and 9.5%, respectively, as shown in  
14 Exhibit No.\_\_(MPG-21).

15 **Q. PLEASE DESCRIBE YOUR CONCERN WITH DR. AVERA'S MIDPOINT**  
16 **ESTIMATES.**

17 **A.** Presenting midpoint DCF estimates is just another way to manipulate the results of Dr.  
18 Avera's DCF studies. Similar to his average estimates, his midpoint estimates are  
19 upward biased because Dr. Avera does not include all of his results, but again he  
20 excludes the lowest results, without excluding the highest ones, which unreasonably  
21 inflates his midpoint estimate.

22 In fact, this practice of subjectively excluding some illogical estimates but not  
23 others completely contradicts the Federal Energy Regulatory Commission's ("FERC")  
24 position. FERC has found that using median results is more accurate in a skewed  
25 distribution.

1 Specifically, FERC states:

2 Protesters state that in *Northwest Pipeline Corp.*, [footnote omitted] the  
3 Commission determined that the median best represented the central  
4 tendency in a skewed distribution and is therefore preferable to the  
5 midpoint. The Commission stated that since the midpoint is the  
6 average of the highest and lowest numbers in the group, it is clearly  
7 subject to distortion by extremely high or low values.<sup>41/</sup>

8 Therefore, Dr. Avera's midpoint results should not be relied upon by the  
9 Commission when establishing a fair return for Avista.

10 **Q. PLEASE DESCRIBE DR. AVERA'S FORWARD-LOOKING MARKET RISK**  
11 **PREMIUM CAPM ANALYSES.**

12 **A.** Dr. Avera developed two CAPM analyses based on current and projected Treasury  
13 bond yields. Dr. Avera estimates a forward-looking return on the market of 13.5%.  
14 From this market return estimate he subtracts his risk-free rate, the current and  
15 projected long-term Treasury bond yields of 3.0% and 4.4%, respectively, to arrive at  
16 a market risk premium of 10.5% and 9.1%.<sup>42/</sup> He relies on the average utility beta of  
17 0.75 for the companies included in his proxy group to produce an implied cost of  
18 equity for his utility group in the range of 10.8% to 11.2%.<sup>43/</sup> He then adds a size  
19 adjustment to his CAPM return estimate of 0.94% to arrive at his implied cost of  
20 equity for the utility proxy group in the range of 11.8% to 12.1%.<sup>44/</sup>

21 **Q. IS DR. AVERA'S FORWARD-LOOKING CAPM ANALYSIS REASONABLE?**

22 **A.** No. Dr. Avera's CAPM analysis is based on a market risk premium in the range of  
23 9.1% to 10.5%.<sup>45/</sup> This market risk premium is significantly higher than the historical

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<sup>41/</sup> Potomac-Appalachian Transmission Highline, L.L.C., 122 FERC ¶ 61,188; Docket No. ER08-386-000, Order Accepting and Suspending Formula Rates, Subject to Conditions, and Establishing Hearing and Settlement Procedures, February 29, 2008 at 23-24.

<sup>42/</sup> Exh. No. \_\_\_\_ (WEA-9) at 2.

<sup>43/</sup> Exh. No. \_\_\_\_ (WEA-1T) at 53 (Avera).

<sup>44/</sup> Exh. No. \_\_\_\_ (WEA-9) at 2.

<sup>45/</sup> Id. at 1-2.

1 market risk premium of 6.6%. Dr. Avera's 13.5% projected market return used to  
2 derive the market risk premium of 9.1% to 10.5% is highly inflated and unreliable.  
3 This market return estimate is based on a DCF analysis that includes a growth rate  
4 projection of 10.9% and a dividend yield of 2.6%. Dr. Avera's risk premium is  
5 dramatically overstated because it is based on a DCF return produced by irrationally  
6 high growth outlooks, and is, therefore, not reliable.

7 Specifically, it is simply irrational to expect that securities market capital  
8 appreciation and growth will be at 10.9% for an indefinite period of time, as reflected  
9 in Dr. Avera's market study. This is important because the DCF model requires a  
10 sustainable long-term growth rate, not simply a growth rate that might be appropriate  
11 for the next five years. The growth rate for the overall securities market must reflect  
12 the economy in which its companies operate, and the earnings and dividend-paying  
13 ability of those companies. Companies produce earnings and dividends by selling  
14 goods and services in the marketplace. Hence, companies' earnings growth and sales  
15 growth opportunities cannot be substantially in excess of the expected growth in the  
16 overall economy. It is simply not a rational expectation to believe that, for an  
17 extended period of time, the growth rate of companies will both exceed the growth of  
18 the overall economy in which they sell their goods and services. As I mentioned  
19 above, *Blue Chip Financial Forecasts* projects an average 5- to 10-year nominal  
20 growth in the GDP, or overall U.S. economy, of 4.9%.<sup>46/</sup> Hence, expecting a growth  
21 rate of 10.9%, in essence, assumes that the securities market can grow at a rate more  
22 than twice that of the overall U.S. economy. This is simply not a rational expectation.

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<sup>46/</sup> *Blue Chip Financial Forecasts*, June 1, 2012 at 14.



1 **Q. IS DR. AVERA’S PROPOSAL TO INCREASE HIS CAPM RETURN**  
2 **ESTIMATE BY 0.94% TO REFLECT A SIZE ADJUSTMENT**  
3 **APPROPRIATE?**

4 **A.** No. Dr. Avera’s size adjustment is based on estimates made by Morningstar in its  
5 *Ibbotson SBBi 2012 Valuation Yearbook*. In that publication, Morningstar estimates  
6 various size adjustments based on differentials in utility beta estimates tied to the size  
7 of a company. The size adjustment recommended by Dr. Avera reflects companies  
8 that have beta estimates in excess of 1.00.<sup>47/</sup> These beta estimates are substantially  
9 higher than the beta estimates of 0.75 for the proxy utility group used by Dr. Avera as  
10 reflective of Avista’s investment risk. Therefore, his beta estimates produce a CAPM  
11 return estimate that is not risk comparable to Avista and therefore, is not reasonable  
12 for setting a fair return for Avista.

13 **Q. HOW WOULD DR. AVERA’S FORWARD-LOOKING CAPM RETURN**  
14 **ESTIMATE CHANGE IF A REASONABLE FORWARD-LOOKING MARKET**  
15 **RISK PREMIUM WERE USED?**

16 **A.** Applying a market risk premium estimate of 6.6%, a beta of 0.75 and using  
17 Dr. Avera’s current and projected risk-free rates of 3.0% and 4.4%, respectively, will  
18 produce a CAPM return in the range of 7.95% to 9.35%, rounded to 8.0% and 9.4%.

19 **Q. PLEASE DESCRIBE DR. AVERA’S UTILITY RISK PREMIUM ANALYSIS.**

20 **A.** Dr. Avera’s utility bond yield versus authorized return on common equity risk  
21 premium is shown in Exhibit No.\_\_(WEA-10). As shown on page 3 of this exhibit,  
22 Dr. Avera estimated an annual equity risk premium by subtracting Moody’s average  
23 bond yield from the electric utility regulatory commission authorized return on  
24 common equity over the period 1974 through 2011. Based on this analysis, Dr. Avera

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<sup>47/</sup> 2012 SBBi Valuation Yearbook at 89.

1 estimates an average indicated equity risk premium over current utility bond yields of  
2 3.41%.

3 Dr. Avera then adjusts this average equity risk premium using a regression  
4 analysis based on an expectation that there is an ongoing inverse relationship between  
5 interest rates and equity risk premiums. Based on this regression analysis, Dr. Avera  
6 increases his equity risk premium from 3.41%, up to 5.23% and 4.55% relative to the  
7 current and projected average bond yields. He then adds these inflated equity risk  
8 premiums to the current and projected “BBB” rated utility bond yields of 5.06% and  
9 6.69%, respectively, to produce a return on equity of 10.29% and 11.24%,  
10 respectively.

11 **Q. ARE DR. AVERA’S UTILITY RISK PREMIUM ANALYSES REASONABLE?**

12 **A.** No. Dr. Avera develops a forward-looking risk premium model, relying on forecasted  
13 interest rates and volatile utility yield spreads, which are highly uncertain and prone to  
14 inaccurate results. Further, Dr. Avera’s proposal to adjust the actual equity risk  
15 premium of 3.41% to 5.23% and 4.55% to reflect an inverse relationship between  
16 interest rates and utility equity risk premiums is flawed and not reliable. This  
17 adjustment is inappropriate and not consistent with academic literature that finds that  
18 this relationship should change with risk changes and not simply changes to interest  
19 rates.

20 **Q. DO YOU HAVE ANY COMMENTS CONCERNING DR. AVERA’S**  
21 **FORECASTED UTILITY YIELD OF 6.7%?**

22 **A.** Yes. Dr. Avera develops his forecasted utility yield based on the 6-month historical  
23 spread of BBB-AA rated utility bond yields of 1.00% added to his projected “AA”  
24 utility bond yield of 5.72%. Exhibit No.\_\_(WEA-3) at 24, Table 2. This approach is

1 unreasonable, because Dr. Avera relies exclusively on projected interest rates. The  
2 accuracy of his projections is highly problematic. Indeed, while interest rates have  
3 been projected to increase over the last several years, those increased interest rate  
4 projections have turned out to be wrong.

5 **Q. WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED**  
6 **INTEREST RATES IS HIGHLY PROBLEMATIC?**

7 **A.** Over the last several years, observable current interest rates have been a more accurate  
8 predictor of future interest rates than economists' consensus projections. Exhibit  
9 No.\_\_(MPG-22) illustrates this point. On this exhibit, under Columns 1 and 2, I  
10 show the actual market yield at the time a projection is made for Treasury bond yields  
11 two years in the future. In Column 1, I show the actual Treasury yield and, in Column  
12 2, I show the projected yield two years out.

13 As shown in Columns 1 and 2, over the last several years, Treasury yields were  
14 projected to increase relative to the actual Treasury yields at the time of the projection.  
15 In Column 4, I show what the Treasury yield actually turned out to be two years after  
16 the forecast. Under Column 5, I show the actual yield change at the time of the  
17 projections relative to the projected yield change.

18 As shown in this exhibit, over the last several years, economists consistently  
19 have been projecting that interest rates will increase. However, as demonstrated under  
20 Column 5, those yield projections have turned out to be overstated in virtually every  
21 case. Indeed, actual Treasury yields have decreased or remained flat over the last five  
22 years, rather than increase as the economists' projections indicated. As such, current  
23 observable interest rates are just as likely to predict future interest rates as are  
24 economists' projections.

1 **Q. WHY IS DR. AVERA’S USE OF A SIMPLE INVERSE RELATIONSHIP**  
2 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS NOT**  
3 **REASONABLE?**

4 **A.** Dr. Avera’s belief that there is a simplistic, inverse relationship between equity risk  
5 premiums and interest rates is not supported by academic research. While academic  
6 studies have shown that, in the past, there has been an inverse relationship with these  
7 variables, researchers have found that the relationship changes over time and is  
8 influenced by changes in perception of the risk of bond investments relative to equity  
9 investments, and not simply changes to interest rates.<sup>48/</sup>

10 In the 1980s, equity risk premiums were inversely related to interest rates, but  
11 that was likely attributable to the interest rate volatility that existed at that time.

12 Interest rate volatility currently is much lower than it was in the 1980s.<sup>49/</sup> As such,  
13 when interest rates were more volatile, the relative perception of bond investment risk  
14 increased relative to the investment risk of equities. This changing investment risk  
15 perception caused changes in equity risk premiums.

16 In today’s marketplace, interest rate variability is not as extreme as it was  
17 during the 1980s. Nevertheless, changes in the perceived risk of bond investments  
18 relative to equity investments still drive changes in equity premiums. However, a  
19 relative investment risk differential cannot be measured simply by observing nominal  
20 interest rates. Changes in nominal interest rates are highly influenced by changes to  
21 inflation outlooks, which also change equity return expectations. As such, the relevant

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<sup>48/</sup> “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.

<sup>49/</sup> *Morningstar SBBI, 2009 Yearbook* at 95-96.

1 factor needed to explain changes in equity risk premiums is the relative changes to the  
2 risk of equity versus debt securities investments, not simply changes to interest rates.

3 Importantly, Dr. Avera's analysis simply ignores investment risk differentials.  
4 He bases his adjustment to the equity risk premium exclusively on changes in nominal  
5 interest rates. This is a flawed methodology and does not produce accurate or reliable  
6 risk premium estimates. His results should be rejected by the Commission.

7 **Q. CAN DR. AVERA'S RISK PREMIUM ANALYSES BASED ON CURRENT**  
8 **AND PROJECTED YIELDS BE MODIFIED TO PRODUCE MORE**  
9 **REASONABLE RESULTS?**

10 **A.** Yes. Eliminating the inverse relationship adjustment to the equity risk premium of  
11 3.41% and relying on Dr. Avera's current "BBB" rated utility yield of 5.06% will  
12 result in a return on equity risk premium of 8.47%, rounded to 8.5%. Using  
13 Dr. Avera's 2011 equity risk premium of 5.09% as shown on page 3 of his Exhibit  
14 No.\_\_(WEA-10) and his current "BBB" rated utility yield of 5.06% will result in a  
15 return of 10.15%, rounded to 10.2%. Therefore, Dr. Avera's risk premium will be in  
16 the range of 8.5% to 10.2%, with a midpoint of 9.4%.

17 **Q. PLEASE DESCRIBE DR. AVERA'S COMPARABLE EARNINGS ANALYSIS.**

18 **A.** Dr. Avera's comparable earnings analysis is based on *Value Line's* projected earned  
19 return on book equities for his utility proxy group, adjusted to reflect average year  
20 equity returns. Based on a review of *Value Line* projected earnings for the electric and  
21 gas industry over the next three to five years, Dr. Avera estimates a return on equity  
22 for Avista of 10.5%. Based on *Value Line's* earnings projections for the proxy group,  
23 Dr. Avera estimates the return on equity for Avista to be 10.0%. Exhibit No.  
24 \_\_(WEA-1T) at 49.

1 **Q. IS THE COMPARABLE EARNINGS ANALYSIS A REASONABLE METHOD**  
2 **FOR ESTIMATING A FAIR RETURN ON EQUITY FOR AVISTA?**

3 **A.** No. A comparable earnings analysis does not measure the return an investor requires  
4 in order to make an investment. Rather, it measures the earned return on book equity  
5 that companies have experienced in the past or are projected to achieve in the future.  
6 The returns investors require in order to assume the risk of an investment are  
7 measured from prevailing stock market prices. A comparable earnings analysis  
8 measures an accounting return on book equity. Therefore, such a return is not  
9 developed from observable market data. A return estimate using a comparable  
10 earnings analysis can differ significantly from the return investors currently require.  
11 Therefore, Dr. Avera's comparable earnings approach should be rejected.

12 **Q. DOES THIS CONCLUDE YOUR RESPONSIVE TESTIMONY?**

13 **A.** Yes, it does.