

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-15 _____

DOCKET NO. UG-15 _____

DIRECT TESTIMONY OF
ELIZABETH M. ANDREWS
REPRESENTING AVISTA CORPORATION

TABLE OF CONTENTS

1		
2		<u>Page</u>
3	I. Introduction	2
4		
5	II. Summary of Proposed Electric and Natural Gas 2016 Requested Revenue Increases	4
6		
7	III. Ongoing Attrition	7
8		
9	IV. Rate Making Objectives	10
10		
11	V. Avista's Attrition Studies	13
12	Electric Attrition Study	18
13	2016 Electric Attrition Revenue Requirement	20
14	Natural Gas Attrition Study	32
15	2016 Natural Gas Attrition Revenue Requirement	35
16	Electric and Natural Gas Attrition Study Revenue Requirement Summaries	37
17		
18		
19		
20	Exhibit No. ____ (EMA-2) Electric Attrition Study	(pgs 1-11)
21	Exhibit No. ____ (EMA-3) Natural Gas Attrition Study	(pgs 1-11)
22	Exhibit No. ____ (EMA-4) NARUC Rate Case and Audit Manual	(pgs 1-52)
23		

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

I. INTRODUCTION

Q. Please state your name, business address, and present position with Avista Corporation.

A. My name is Elizabeth M. Andrews. I am employed by Avista Corporation as Manager of Revenue Requirements in the State and Federal Regulation Department. My business address is 1411 East Mission, Spokane, Washington.

Q. Would you please describe your education and business experience?

A. I am a 1990 graduate of Eastern Washington University with a Bachelor of Arts Degree in Business Administration, majoring in Accounting. That same year, I passed the November Certified Public Accountant exam, earning my CPA License in August 1991¹. I worked for Lemaster & Daniels, CPAs from 1990 to 1993, before joining the Company in August 1993. I served in various positions within the sections of the Finance Department, including General Ledger Accountant and Systems Support Analyst until 2000. In 2000, I was hired into the State and Federal Regulation Department as a Regulatory Analyst until my promotion to Manager of Revenue Requirements in early 2007. I have also attended several utility accounting, ratemaking and leadership courses.

Q. As Manager of Revenue Requirements, what are your responsibilities?

A. As Manager of Revenue Requirements, aside from special projects, I am responsible for the preparation of normalized revenue requirement and ratemaking studies for the various jurisdictions in which the Company provides utility services. Since 2000, I

¹ Currently I keep a CPA-Inactive status with regards to my CPA license.

1 have led, or assisted in, the Company's electric and/or natural gas general rate filings in
2 Washington, Idaho and Oregon.

3 **Q. What is the scope of your testimony in this proceeding?**

4 A. My testimony and exhibits in this proceeding will cover the need for the
5 additional rate relief requested in the Company's filing. I will first summarize the
6 Company's 2016 electric and natural gas revenue requirement requests based on the
7 Company's electric and natural gas Attrition Studies.

8 I will also discuss the on-going attrition experienced by Avista, and the importance
9 of rate relief from this filing. Later in my testimony I will discuss in more detail the overall
10 methodology and results of the Company's Attrition Studies. In addition to our Attrition
11 Analysis, through Company witness Ms. Smith we have also provided a pro forma cross-
12 check analysis for the 2016 rate year. Both the Attrition Analysis and the Pro Forma Cross
13 Check Analysis produce similar results in terms of the need for electric and natural gas
14 revenue increases for 2016.

15 **Q. Are you sponsoring any exhibits to be introduced in this proceeding?**

16 A. Yes. I am sponsoring Exhibit Nos. ____ (EMA-2) through ____ (EMA-4),
17 which were prepared by me or under my direction. Exhibit Nos. ____ (EMA-2) (Electric) and
18 ____ (EMA-3) (Natural Gas) present the results of the Company's electric and natural gas
19 Attrition Studies, as well as the underlying data supporting the Attrition Studies. These
20 exhibits also show, among other thing, the proposed rate of return, the derivation of the net-
21 operating-income-to-gross-revenue-conversion factor, and the proposed revenue requirement
22 based on the Attrition Study analysis. Exhibit No. ____ (EMA-4) is a copy of the NARUC

1 Rate Case and Audit Manual (NARUC Manual) prepared by the NARUC Staff
2 Subcommittee on Accounting and Finance, referred to later in my testimony.

3

4 **II. SUMMARY OF PROPOSED ELECTRIC AND NATURAL GAS**
5 **2016 REQUESTED REVENUE INCREASES**

6

7 **Q. Please summarize the Company's electric and natural gas revenue**
8 **increases requested in the Company's filing.**

9 A. The results of the electric and natural gas Attrition Studies show 2016 rate
10 period rates of return ("ROR") for the Company's Washington jurisdictional operations of
11 6.05% and 5.01%, respectively. Both return levels are below the Company's requested ROR
12 of 7.46%. The incremental revenue requirement, over and above rates currently in effect,
13 that is necessary to give the Company an opportunity to earn its requested ROR in 2016 is
14 \$33,229,000 for electric operations, and \$12,021,000 for natural gas operations. The overall
15 base electric increase associated with this request is 6.6%. The base natural gas increase is
16 7.0%.

17 **Q. What are the primary factors driving the Company's requested electric**
18 **and natural gas revenue increases?**

19 A. The increase in overall costs to serve customers is driven primarily by two
20 major factors: 1) the continuing need to replace and upgrade the facilities and technology
21 we use every day to serve our customers, and 2) low revenue growth.

22 More specifically, as discussed further by Company witnesses Mr. Morris and Mr.
23 Thies, in the next five years Avista will need to spend approximately \$1.8 billion of capital
24 on utility generation, transmission and distribution facilities and other requirements. This

1 \$1.8 billion represents over 70% of the current rate base of approximately \$2.5 billion
2 dedicated to serving customers today. As further discussed by Mr. Morris (and shown in
3 Illustration No. 7 of his testimony), net plant investment for the last several years has been
4 growing at a much faster pace than retail kilowatt-hour (kWh) sales and retail therm sales.
5 This mismatch in the growth of net plant investment and sales is expected to continue to the
6 future, requiring the Company to request increases in its retail rates to cover this increase in
7 net plant investment, since revenue growth is not sufficient to cover it.

8 **Q. What are the Company's rates of return that were last authorized by this**
9 **Commission for its electric and natural gas operations in Washington?**

10 A. The last authorized rate of return by this Commission for both the Company's
11 electric and natural gas operations in its Washington jurisdiction was 7.64%, approved in
12 Docket Nos. UE-120436 and UG-120437 (*Consolidated*), effective January 1, 2013.²

13 **Q. On what test period is the Company basing its need for additional**
14 **electric and natural gas revenue?**

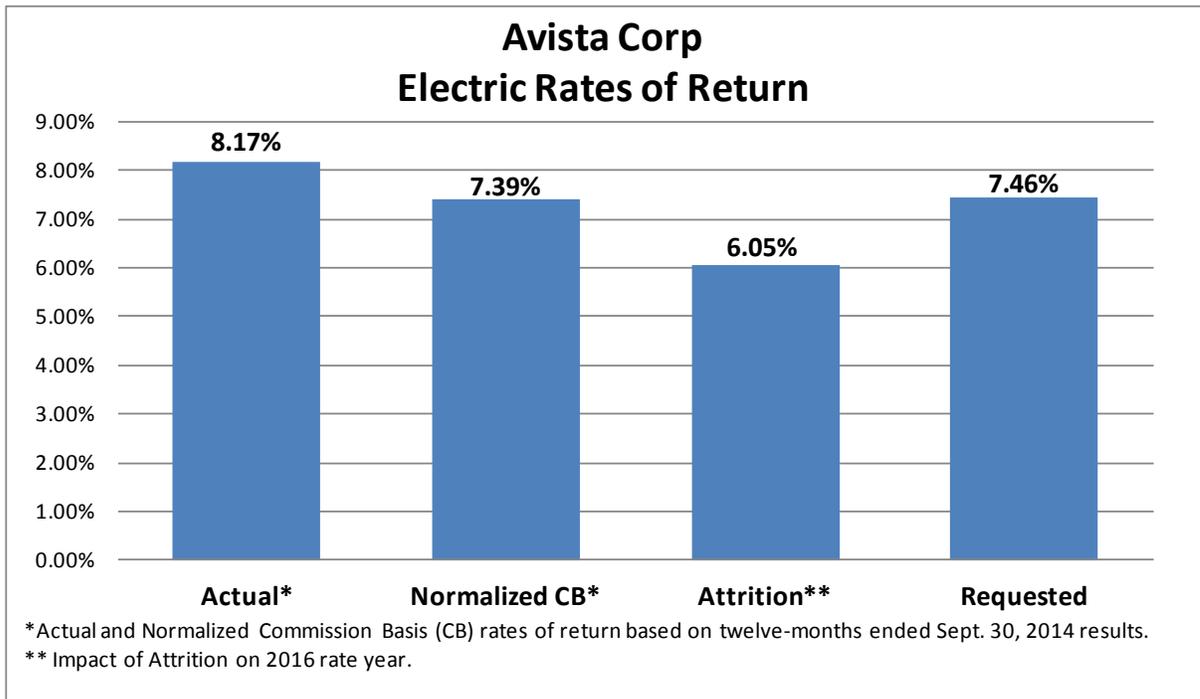
15 A. The test period being used by the Company is the twelve-month period
16 ending September 31, 2014, presented on an attrition-adjusted basis. Current authorized
17 rates were based upon the 2013 test year utilized in UE-140188 and UG-140189
18 (*Consolidated*), adjusted per the settlement agreement approved by the Commission in those
19 Dockets.

² In Avista's 2014 general rate case, Docket Nos. UE-140188 and UG-140189 (*Consolidated*), for settlement purposes the parties agreed to a 7.32 percent rate of return (ROR) to be used for AFUDC purposes and certain other purposes only. An overall ROR based on an approved capital structure or cost of capital was not agreed to or approved by the Washington Commission.

1 **Q. By way of summary, please explain the different rates of return that you**
 2 **will be presenting in your testimony for electric operations.**

3 A. There are four different rates of return that are discussed. The actual ROR
 4 earned by the Company during the test period, the normalized or Commission Basis (CB)
 5 ROR results for the test period, the Attrition adjusted ROR determined in my Exhibit
 6 No. ____ (EMA-2), and the requested ROR. These returns are shown in Illustration No. 1
 7 below:

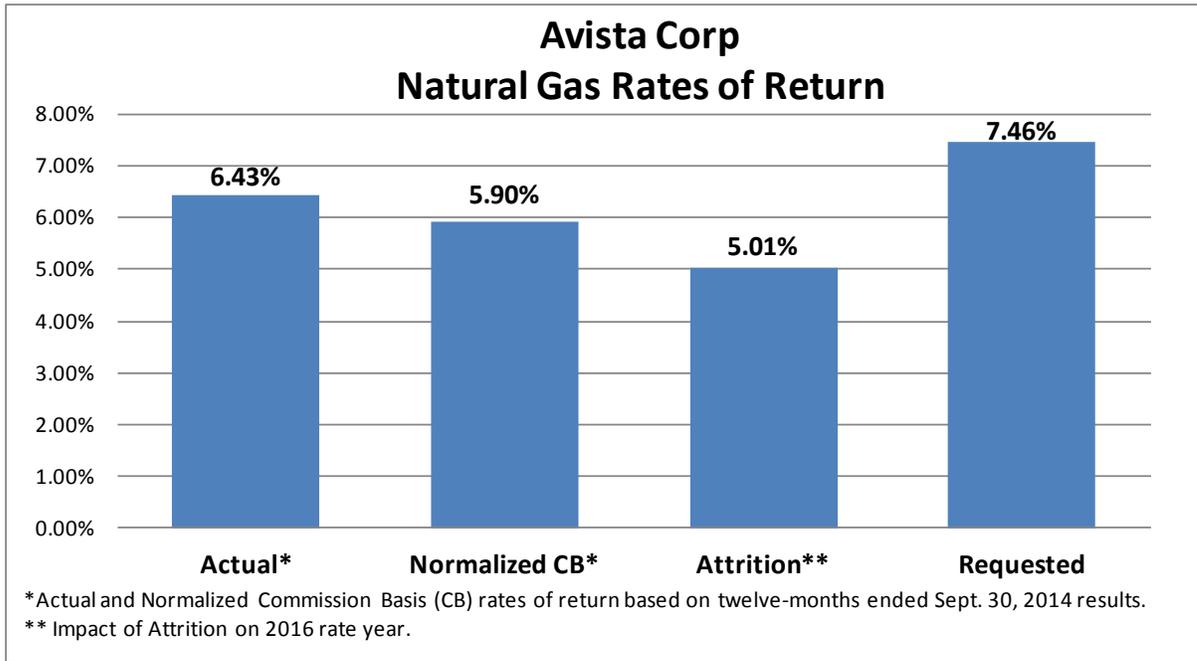
8 **Illustration No. 1**



19 **Q. What are these same identified rates of return discussed in your**
 20 **testimony for the natural gas operations?**

21 A. These same four rates of return for the natural gas operations (Actual,
 22 Normalized CB, Attrition and Requested) are shown below in Illustration No. 2.

1 **Illustration No. 2**



11

12 **III. ONGOING ATTRITION**

13 **Q. In the last two general rate cases filed by Avista, the Company has**
 14 **provided evidence demonstrating that it is experiencing attrition. How does Avista**
 15 **define attrition?**

16 A. I agree with the definition of attrition that the Commission Staff has
 17 presented to the Commission in prior dockets:

18 The term is typically used to refer to the erosion of a company’s rate of return over
 19 time when the historical test period relationship in revenues, expenses and rate base
 20 accepted by the Commission in a rate case does not hold during a future rate year.
 21 (Exhibit KLE-1T, page 64, Dockets UE-111048/UG-111049)

22

23 **Q. Is Avista continuing to experience attrition?**

24 A. Yes. The evidence Avista has presented in this filing shows that the
 25 Company continues to experience attrition.

1 **Q. What does this imply for ratemaking in this rate case filing?**

2 A. In order for the Company to have the opportunity to earn a reasonable rate of
3 return in 2016, recognition of the need for additional rate relief in 2016 based on a
4 continuation of attrition is imperative.

5 **Q. How does Avista’s growth in revenue, expenses and rate base compare**
6 **over time, both for the recent historical period as well as expectations for future years?**

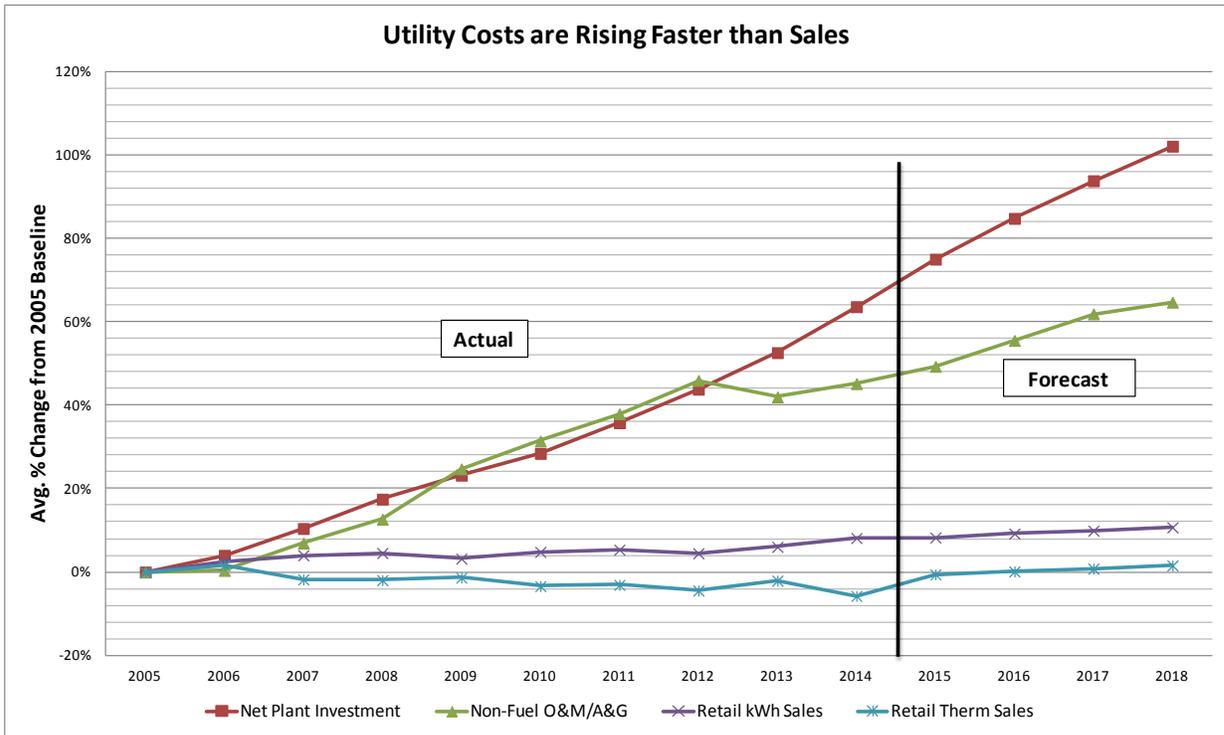
7 A. Illustration No. 3 below, which is also included in Mr. Morris’s testimony,
8 shows actual information for the period 2005 to 2014, and forecasted information for 2015
9 to 2018. The red line on the graph shows the actual growth in net utility plant investment
10 through 2014, which is representative of growth in rate base, and the expected growth for
11 2015 through 2018.³

12 The purple and blue lines on the graph show the changes in retail kilowatt-hour
13 (kWh) sales and retail therm sales, respectively, for the same time period. The graph shows
14 net plant investment growing at a much faster pace than kWh and therm sales, and this
15 mismatch is forecasted to continue to the future.

16 The green line on the graph also shows that non-fuel operations and maintenance
17 (O&M) expenses and administrative and general (A&G) expenses are also growing at a
18 faster pace than sales.

19

³ The net plant numbers include total utility electric and natural gas investment in all three states (WA, ID, and OR).

Illustration No. 3

Q. The non-fuel O&M/A&G costs dip down in 2013, and then grow at a slower pace than in prior years. Does this reflect the benefits from recent cost management measures?

A. Yes. As Mr. Morris explained in his testimony, in the fourth quarter of 2012 Avista developed and implemented the Voluntary Severance Incentive Plan (VSIP) program to reduce employee complement at the Company. Mr. Morris also explains recent decisions to change Avista's pension and post-retirement medical plans, effective January 1, 2014, which served to reduce the growth of future O&M/A&G costs. Even with these cost management measures, however, non-fuel O&M/A&G is still increasing at a faster pace than sales of kWh and therms.

1 individual jurisdictions while maintaining the overall usefulness of the more
2 general guidelines. (emphasis added)

3 An example of a common difference among the jurisdictions is the test year
4 used. Some states use an average historic test year, others use a year-end
5 historic test year, and others use projected, future test periods. Yet, this
6 difference does not generally change the nature or importance of the test year,
7 nor does it change the basic list of elements that are included in the rate base or
8 the operating income statement.

9 Some of the principles in the NARUC Manual directly address the attrition Avista is
10 experiencing, and, in fact, support the use of appropriate adjustments to ensure that the new
11 retail revenues resulting from a general rate case will provide recovery of utility costs, along
12 with a reasonable opportunity to earn a fair return. Some of these important principles are
13 included in the following excerpts from the NARUC Manual:

- 14 1. Whether using a future or historic test year, the auditor should judge the
15 appropriateness of the test year that has been proposed. Is it representative, after
16 adjustments, of the period in which rates take effect? (Page 10) (emphasis added)
- 17 2. When looking at an historic test year, one of the first questions asked is whether the
18 test year is too stale to make it a reasonable basis upon which to establish rates for a
19 future period. In looking at the appropriateness of the test year (and whether it might
20 be too old), one should look at what has happened since the end of the test year and
21 the current time. (Page 10) (emphasis added)
- 22 3. In looking at the months beyond the end of the test year, have the growth rates for
23 rate base, expenses, and revenues all remained fairly close and constant, maintaining
24 the test year relationship among these three elements, or has one element changed
25 dramatically, making the test year out of kilter with current operations? If so, can this
26 situation be resolved through adjustments to the test year? (Page 10) (emphasis
27 added)
- 28 4. A utility's rate filing commonly begins with test year booked numbers, which are
29 then adjusted to represent anticipated, normalized operations for the period that the
30 rates will take effect. (See Revenue Requirement Computation example toward the
31 end of this document.) Several types of adjustments may be included, and these
32 adjustments may be referenced by different names in different jurisdictions.
33 Commonly, these adjustments will include correcting adjustments (e.g., the removal
34 of prior period items from the test year), normalizing adjustments (e.g., adjusting
35 revenues for normalized weather conditions or for a normalized level of expenses),

1 and pro forma adjustments (e.g., the reflection of authorized salary increases into the
2 test year figures). In general, the pro forma adjustments can be viewed as a
3 ratemaking attempt to transform the relationship that exists between the elements of
4 cost of service (revenues, expenses, taxes, and investment) during the test year to one
5 that would take place during the period that the rates resulting from the rate
6 proceeding take effect. One is trying to identify circumstances during the test year, or
7 beyond the end of the test year, that impact the on-going expenditures or revenues of
8 the utility. (Page 15) (emphasis added)

9 5. In reviewing the prudence and reasonableness of the adjustments proposed by the
10 utility, the auditor should ultimately keep in mind that the ultimate purpose of the
11 review is to determine a revenue requirement and customer rates that are just, fair,
12 reasonable, and sufficient. (Page 15) (emphasis added)

13 6. The auditor should not only review the utility’s proposed adjustments, but should
14 also look for the adjustments that have *not* been made. Are there adjustments missing
15 that if made would make the test year more reflective of normal, on-going
16 operations? (Page 15) (emphasis added)

17 7. Additionally, one will want to look at a multi-year comparison of annual revenue to
18 obtain a view of the trend for the utility. Is it growing and if so, is the growth
19 relatively consistent? Is the growth related to new customers or additional usage of
20 existing customers? (The answer to this question may help explain whether the
21 growth in revenue is consistent or inconsistent with growth in plant.) Are revenues
22 and expenses growing together? (Page 31) (emphasis added)

23 A copy of this NARUC Manual has been included as Exhibit No. ___(EMA-4).

24 As noted above “the ultimate purpose of the review,” and, therefore, any general rate
25 case proceeding, is to establish rates for a utility and its customers, “that are just, fair,
26 reasonable, and sufficient” to allow a utility the opportunity to earn a fair return as
27 authorized by the Commission.

28 Whether rates are established based on historical test periods with certain pro forma
29 adjustments to reflect the rate year, use of a forecasted test year to reflect the rate year, or an
30 attrition adjustment to reflect the rate year – the common goal or result in each case is to
31 establish results which determine rates appropriate “during the rate year.” It is not

1 necessarily the “how” that is important, but the “results” that provide a fair, just, reasonable
2 and sufficient outcome for the utility and its customers.⁶

3

4 **V. AVISTA’S ATTRITION STUDIES**

5 **Q. What has the Company proposed in this filing to address attrition?**

6 A. Avista prepared both electric and natural gas Attrition Studies to quantify the
7 mismatch in the growth of revenues, expenses and rate base for ratemaking purposes. The
8 Company’s proposed electric and natural gas revenue increases in this filing are based on the
9 Attrition Adjustments derived from the electric and natural gas Attrition Studies. These
10 Attrition Studies, described in further detail below, used the same methodology Avista used
11 in our last two general rate cases filed in 2012 and 2014.

12 The starting point for the Attrition Studies is normalized expense and rate base data
13 for prior years from Commission Basis Reports, and the resulting growth trends in expenses
14 and rate base. The data in the Commission Basis Reports reflect normalized numbers based
15 on normalizing methods previously approved by the Commission.

16 The trend in O&M/A&G expenses was adjusted downward to reflect the cost-cutting
17 measures by Avista (discussed earlier), and net plant-related trends have been adjusted
18 upward to reflect the accelerated growth in net plant investment for the 2014 to 2016 period.
19 The annual growth rates for each cost category were applied to test year expenses and rate

⁶ For example, the rate making treatment over the last several years has been different between Avista’s jurisdictions (Washington, Idaho and Oregon). Oregon uses a forecasted test period to reflect rates during the rate year. In the State of Idaho, although we begin with a historical test period, pro forma adjustments are made to more closely reflect the costs, and return, associated with providing service to customers for the future rate year.

1 base to arrive at the level of expenses and rate base for the 2016 rate year.

2 Power supply revenues and expenses for the rate year included in the electric
3 Attrition Study are based on those developed using the AURORA model, as explained by
4 Company witness Mr. Kalich, together with the power supply costs presented by Company
5 witness Mr. Johnson. These power supply costs are based on methodologies used and
6 approved for ratemaking in Washington for many years. Retail revenues for the rate year are
7 based on the Company's most recent retail load forecast generated by Dr. Forsyth. The
8 methodologies employed for the load forecast have been refined over time and have been
9 shared regularly with stakeholders in the Integrated Resource Planning processes in
10 Technical Advisory Committee meetings.

11 The Attrition Adjustments produced by the Attrition Studies reflect the electric and
12 natural gas revenue increases necessary for Avista to earn the proposed rate of return,
13 accounting for the fact that rate base and expenses will grow at a faster pace than revenue.

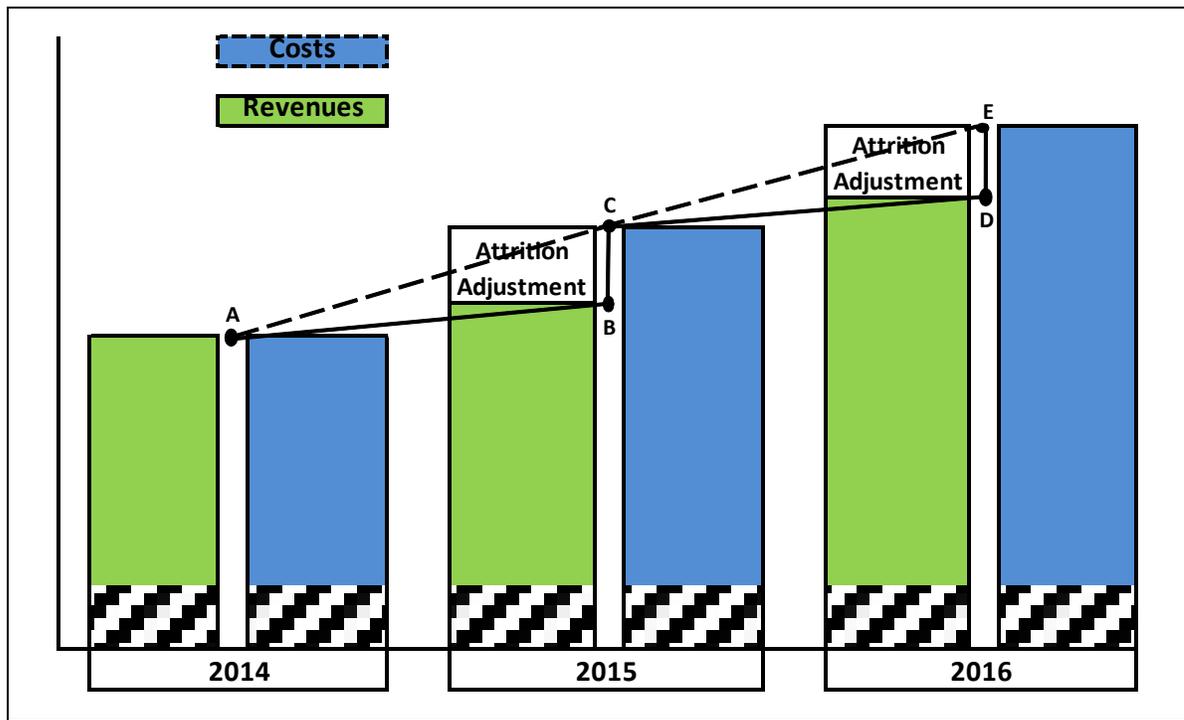
14 The electric Attrition Study produces an attrition-adjusted revenue requirement of
15 \$33.2 million over rates currently in effect. The natural gas Attrition Study produces an
16 attrition-adjusted revenue requirement of \$12.0 million.

17 **Q. Do you have an illustration that shows how the Attrition Adjustment**
18 **covers the mismatch in the growth in revenues and costs over time?**

19 A. Yes. The bar chart in Illustration No. 4 below shows how the Attrition
20 Adjustment, over time, provides additional revenues to cover the growth in costs that are
21 increasing at a faster pace than revenues.

22

1 **Illustration No. 4**



12 The chart illustrates that between 2014 and 2015, Costs (from Points A to C) are
 13 increasing at a higher rate than Revenues (from Points A to B). The Attrition Adjustment
 14 provides additional revenues to make up the difference between the higher growth in costs,
 15 and the lower growth in revenues, such that the “Revenues” for 2015 are equal to the
 16 “Costs” in 2015, including the authorized return on investment.

17 The Attrition Adjustment for 2015 represents the revenue increase effective January
 18 1, 2015 from Avista’s last general rate case settlement. The Attrition Adjustment for 2016
 19 represents the revenue from this rate case filing, necessary to allow Avista the opportunity to
 20 recover its operating costs, and earn the return on investment to be authorized by the
 21 Commission in this case.

1 **Q. Has Commission Staff in recent rate cases continued to support the use**
2 **of an Attrition analysis to determine the appropriate revenue requirement for the**
3 **upcoming rate year?**

4 A. Yes. As discussed by UTC Staff witness Mr. Elgin in Avista’s rate filing,
5 Docket Nos. UE-120436 and UG-120437, at Exhibit No. __T (KLE-1T), page 4, lines 7-13:

6 Staff believes an attrition analysis is the proper approach in circumstances
7 where a utility allege[s] it persistently fails to realize a fair return. An attrition
8 study considers all elements of the ratemaking formula: revenues, expenses,
9 rate base and rate of return in order to judge whether those relationships in the
10 rate year will be materially different than those in the test year. An attrition
11 study also is the proper means to adjust rate year loads for any effects of
12 conservation programs.

13
14 In these same Dockets, Mr. Elgin further explained, starting at page 5 of Exhibit No.
15 __T (KLE-7T), line 13:

16 Staff conducted a detailed attrition study, and concluded Avista in all
17 likelihood will experience attrition in the 2013 rate year.... In fact, the record
18 evidence is clear that attrition is likely to prevail for the foreseeable future.
19 Avista will continue to experience significant increases in its rate base at a
20 time when there is little, if any, growth in revenue. The effect of these
21 circumstances on Avista today and for the next few years will be attrition. In
22 particular, absent a significant reduction in the amount of its capital budget,
23 growth in load and decrease in operating expense, the most likely scenario for
24 Avista in 2014 will be the results Avista is presenting today: a need for
25 additional rate relief. The record evidence is clear on this fact. (emphasis
26 added)
27

28 Also in these same Dockets, at Exhibit JT-1T, page 26, Commission Staff provided
29 the following testimony regarding its own attrition analysis:

30 First, Staff’s attrition analysis shows Avista is experiencing significant
31 attrition in its utility operations. This is not a one-time phenomenon, because
32 the historical trends demonstrate attrition is present and ongoing. (emphasis
33 added) This is understandable, given Avista’s capital expenditures to replace
34 facilities necessary to provide service to Avista customers, coupled with

1 relatively little if any load growth that will continue in 2013 and 2014, based
2 on the most recent load forecasts provided to the parties.

3
4 In Avista's more recent rate filing, in Docket Nos. UE-140188 and UG-140189, UTC

5 Staff witness Mr. Schooley at Exhibit No. __T (TES-1T) page 4, line 21- page 5, line 1:

6 Staff believes an attrition adjustment is a proper tool to use when there is
7 sufficient evidence that the rate year will be materially different to the test
8 period impacting the utility's opportunity to earn a fair return.
9

10 **Q. In Avista's last general rate case in 2014, the Company provided, in**
11 **addition to the attrition analysis, pro forma studies as a "cross check" to the proposed**
12 **Attrition Study results. Has the Company also included pro forma studies in this filing**
13 **to compare with the attrition analyses?**

14 A. Yes. Ms. Smith includes these Pro Forma Cross Check Studies in her
15 testimony and exhibits. Ms. Smith started with the unadjusted results of operations for the
16 12-months ended September 2014, and prepared specific restating and pro forma
17 adjustments that have been adopted in prior rate cases. Ms. Smith pro formed plant
18 investment through the 2016 rate year on an average of monthly average basis and included
19 pro forma adjustments to utility operating expenses, in order to reflect the level of expenses
20 and net rate base that are expected in the 2016 rate year.

21 The total revenue requirement associated with Ms. Smith's electric Pro Forma Cross
22 Check Study is approximately \$33.1 million. By comparison, the electric revenue
23 requirement from the Attrition Study is approximately \$33.2 million.

24 For natural gas, the total revenue requirement associated with Ms. Smith's Pro
25 Forma Cross Check Study is \$10.6 million. By comparison, the natural gas revenue
26 requirement from the Attrition Study is \$12.0 million.

1 **Q. Are the Company’s proposed electric and natural gas revenue increases**
2 **in this filing based on the Attrition Studies or the Pro Forma Cross Check Studies?**

3 A. The Company’s proposed electric and natural gas revenue increases in this
4 filing are based on the Attrition Studies. The pro forma analyses are provided as a cross-
5 check.

6 **Electric Attrition Study**

7 **Q. Please explain what is shown on page 1 of the Electric Attrition Study**
8 **provided as Exhibit No. ____ (EMA-2).**

9 A. Exhibit No. ____ (EMA-2), page 1, shows the calculation of the electric
10 general revenue requirement, based on the Company’s electric Attrition Study analysis, to
11 earn the 7.46% rate of return proposed by the Company for its State of Washington electric
12 operations. Page 1 shows the 2016 electric revenue requirement of \$33,229,000 (column
13 (c))⁷.

14 Column (a) of page 1, labeled **Attrition Balances**, shows the electric Attrition Net
15 Operating Income and Attrition Rate Base balances, from page 5 of Exhibit No. ____ (EMA-
16 2), column [K], lines 31 and 49.

17 Column (b) of page 1, labeled **Revenue Growth Factor**, shows the revenue growth
18 factor of 1.013115, as reflected from page 5 of Exhibit No. ____ (EMA-2), column [K], line
19 55. In the case of retail revenue, my Attrition Study uses the Company’s forecast of loads
20 and customers for 2016 to determine revenue in 2016. Since the rate increase in this

⁷ The Company has provided workpapers, both in hard copy and electronic formats, providing the twelve-months-ended September 30, 2014 electric and natural gas Commission Basis results and additional details related to the Attrition Study analysis.

1 proceeding will be applied to the twelve-months-ending September 30, 2014 test period
2 billing determinants, I have divided my rate year attrition-adjusted revenue requirement by
3 the revenue growth factor to reflect the amount needed to be recovered from the test period
4 level of retail loads and customers. This is shown on page 5, line 54 to 56 of Exhibit No.
5 ____ (EMA-2).

6 Column (c), labeled **Attrition Adjusted Balances and 2016 Revenue**
7 **Requirement**, shows the calculation and final result of the \$33,229,000 revenue requirement
8 at the requested 7.46% rate of return. The revenue requirement is based on the electric
9 Attrition Study “Attrition Rate Base” and “Attrition Net Operating Income” balances in
10 column (a) adjusted for the revenue growth factor from column (b). The resulting
11 percentage revenue increase above 2015 total revenues is 6.6%.

12 **Q. Would you please explain page 2 of Exhibit No. ____ (EMA-2)?**

13 A. Yes. Page 2 shows the proposed Cost of Capital and Capital Structure
14 utilized by the Company in this case resulting in the weighted average cost of capital of
15 7.46%. Mr. Thies discusses the Company’s proposed rate of return and the capital structure
16 utilized in this case, while Mr. McKenzie provides additional testimony related to the
17 appropriate return on equity for Avista.

18 **Q. What does page 3 of Exhibit No. ____ (EMA-2) show?**

19 A. Page 3 shows the derivation of the electric net-operating-income-to-gross-
20 revenue conversion factor. The conversion factor takes into account uncollectible accounts
21 receivable, Commission fees and Washington State excise taxes. Federal income taxes are
22 reflected at 35%.

1 **Q. Would you now please explain pages 4 through 11 of Exhibit**
2 **No. ____ (EMA-2)?**

3 A. Yes. As discussed in more detail below, pages 4 and 5 provide Avista’s 2016
4 electric attrition revenue requirement calculation; pages 6 and 7 provide electric cost and
5 revenue trend data for the period 2001-2013 per historical Commission Basis results of
6 operations; page 8 provides summary data and adjustments to the historical data, and
7 balances that are used in the development of the escalation factors shown on page 9; page 9
8 presents the annual electric growth rate analysis, and the escalation factors used in the
9 Attrition Study; page 10 shows the derivation of the adopted capital related escalation
10 factors used for the depreciation/amortization and net plant after deferred federal income tax
11 amounts (DFIT); and the final page, page 11, shows the development of the electric
12 weighted revenue growth rate from the September 2014 test period to the 2016 rate period.

13 **2016 Electric Attrition Revenue Requirement**

14 **Q. Please describe in more detail what can be found on pages 4 and 5 of**
15 **Exhibit No. ____ (EMA-2).**

16 A. Pages 4 and 5 present the normalized income statement and rate base for
17 Washington electric operations, with the full cost, revenue and rate base detail that is found
18 in Avista’s September 2014 CBR. This report also provides the final result of the
19 Company’s electric attrition adjusted revenue requirement proposed in this filing.

20 **Q. What is shown in column [A] on pages 4 and 5?**

21 A. The first column, labeled [A] **09.2014 Commission Basis Report Restated**
22 **Totals**, provides the results of the September 30, 2014 Commission Basis Report (CBR) that

1 includes normalized cost and revenue data for Avista's Washington electric operations for
2 the period twelve-months-ended September 30, 2014. This column shows that on a CBR,
3 normalized basis for this historical test period, the Company's earned ROR for its
4 Washington electric operations was 7.39%, less than its authorized ROR of 7.64% for the
5 2014 period.

6 The next column, labeled **[B] 09.2014 Normalized Net Power Supply**, is subtracted
7 from column [A], removing all CBR normalized energy related costs and revenues (*e.g.* fuel,
8 purchased power, sales for resale revenues, Colstrip and Coyote Springs 2 (CS2) O&M)
9 from the September 30, 2014 CBR totals. (Pro forma level net power supply costs are added
10 back later, as discussed further below.) This removal ensures that only non-energy costs are
11 trended to the 2016 rate period.

12 The next column, labeled **[C] 09.2014 Plant & Regulatory Amortizations**
13 **Adjustments**, is an addition to column [A] and includes the following three components:

14 1) The first component restates plant additions included in the historical CBR
15 test year from a September 30, 2014 AMA basis to a December 31, 2014 end-of-
16 period (EOP) basis, together with the associated accumulated depreciation, DFIT and
17 depreciation expense at a December 31, 2014 end-of-period basis.⁸

18 2) The second component reflects additions to net plant rate base and
19 depreciation expense for the October 1, 2014 to December 31, 2014 period. The net
20 of these first two components of the adjustment added \$35.1 million in net plant, and

⁸ New plant investment related to customer growth/revenue growth for the test period was adjusted to a December 31, 2014 EOP basis in this adjustment. Growth in new revenue plant is included in order to match growth in plant costs with related growth revenue included in the Attrition Study.

1 \$4.8 million in additional depreciation expense, and represents the most recent
2 historical data available.

3 3) The third component includes various adjustments to regulatory deferred
4 debit and credit rate base balances and regulatory amortizations as follows:

5 a) The regulatory deferred debits and credits rate base balance was reduced to
6 reflect the asset balance expected in 2016, resulting in a reduction to rate base
7 of \$7.4 million⁹.

8 b) Regulatory amortization expense was reduced by \$3.8 million to remove
9 expiring regulatory amortization expenses relating to various deferral
10 amortizations¹⁰.

11 c) Adding to regulatory amortization expense is an adjustment to reflect the
12 Lake Spokane Deferral amortization (reflecting the three-year amortization
13 expense, or an increase of \$291,000, of the deferred costs related to
14 improving dissolved oxygen levels in Lake Spokane, approved in Docket No.
15 UE-140188¹¹).

16 d) Adding to the regulatory deferred debits and credits rate base balance and
17 amortization expense is an adjustment that includes the proposed Meter

⁹ Ms. Smith discusses further in her testimony this reduction in rate base at Exhibit No.__(JSS-1T), pages 8-11, which reduces the following deferred debit asset balances to their appropriate 2016 level: Settlement Exchange Power; Restating CDA Settlement Deferral; Restating CDA/SRR (Spokane River Relicensing) CDR Deferral; Restating Spokane River Deferral; Restating Spokane River PM&E Deferral; Restating Montana Riverbed Lease; and Restating Lancaster Amortization.

¹⁰ Regulatory Amortizations expiring prior to the 2016 rate year include: Lancaster Deferral, 2011 Colstrip and Coyote Springs 2 Thermal Maintenance Expense Deferral, BPA Settlement Deferral, Canada to Northern California (CNC) Transmission Project Deferral, LiDAR O&M Expense Deferral and the Wartsila Generator (Small Gen) Expense Deferral. Ms. Smith discusses further in her testimony these amortizations at Exhibit No.__(JSS-1T), pages 10, 22 and 23.

¹¹ Settlement Stipulation, Docket No. UE-140188, Section III. 8, page 5.

1 Retirement Regulatory Asset and amortization expense, related to the net
 2 investment in electric meters at January 1, 2016, over a ten-year period, with
 3 a return on the unamortized balance¹².

4 The net impact of these regulatory adjustments is a net reduction of \$1.5 million in
 5 amortization expense and a net increase in regulatory rate base balances (or deferred debits
 6 and credits) of \$12.9 million. The resulting regulatory amortization and regulatory rate base
 7 balances as adjusted, represent the balances expected during the 2016 rate year, therefore, no
 8 escalation occurs for these balances as can be seen in column [C], page 4, row 10, and page
 9 5, row 47.

10 **Q. Please continue with your explanation of pages 4 and 5 of Exhibit No.**
 11 **__(EMA-2).**

12 A. The next column, labeled **[D] Pro Forma Revenue Normalization**
 13 **Adjustment**, is an addition to column [A], adding Avista's 2015 electric revenue increase
 14 granted in its last general rate case, Docket No. UE-140188 as if it had been in place for the
 15 whole 12-month period. This adjustment, discussed further by Company witness Ms. Knox,

¹²As discussed by Ms. Schuh, as of December 31, 2015, prior to the installation of the new Advanced Metering Infrastructure (AMI) meter replacement project, the Company will have approximately \$20.2 million on its books related to the net book value of its existing electric distribution meters. The Company is requesting approval in this case, effective January 1, 2016 to transfer the net book value of the existing meters from electric distribution plant, and record as a regulatory asset in FERC Account 182.3 – Other Regulatory Assets, for regulatory purposes. The net impact to rate base is therefore \$0. The Company is proposing to amortize this regulatory asset balance over a ten-year period through FERC Account 407, starting in January of 2016, or approximately \$2.0 million in amortization expense per year. The net impact to expense is an increase in amortization expense of \$2.0 million, offset by a reduction in depreciation expense of \$900,000, resulting in a net increase in expense of \$1.1 million. Ms. Smith, within her electric Pro Forma Cross Check Study, has reflected the reduction to net plant and depreciation expense in adjustment 4.02 – Electric Pro Forma 2016 Capital Adjustment, and included the regulatory asset and amortization expense in adjustment 4.03 – Meter Retirement. Company witness Mr. Kopczynski discusses the AMI meter replacement project within his testimony.

1 is necessary to include revenues at the 2015 approved base rate level.

2 The next column, **[E] December 2014 EOP Escalation Base**, is the sum of the
3 previous columns [A] through [D], providing the December 2014 EOP escalation base costs
4 and rate base excluding net energy costs. This escalation base provides the balances from
5 which the escalation factors, discussed below, are applied to determine the 2016 final
6 attrition revenue requirement.

7 **Q. Please now explain columns [F] through [H].**

8 A. The end-of-period December 31, 2014 plant and related items such as
9 depreciation and property taxes need to be escalated one and one-half years to determine the
10 expected costs for AMA 2016 (i.e., from December 2014 to June 2016). O&M is not at end-
11 of-period levels, and therefore needs to be escalated two and one-quarter years (i.e. from
12 September 2014 to December 2016) to determine the expected costs for calendar year 2016.
13 Column **[F] Escalation Factor** shows the 1 ½ year escalation rates (for net plant after DFIT
14 and depreciation/amortization) and the 2 ¼ year escalation rates (taxes other than income,
15 O&M and other revenues). The determination of each of these factors is explained below.

16 The escalation factors are multiplied by the December 2014 base amounts from
17 column [E], producing column **[G] Non-Energy Cost Escalation Amount**.

18 Adding column [G], the non-energy cost escalation amount to column [E], the
19 December 2014 base amounts, produces column **[H] Trended 2016 Non-Energy Cost**,
20 which provides the 2016 trended amounts, prior to including the impact of 2016 pro formed
21 net power supply and 2016 revenue growth.

1 **Q. Please continue your discussion, describing the final columns [I] through**
2 **[K].**

3 A. Column [I], **09.2014 Pro-Formed Net Energy Cost**, adds the energy costs
4 and sales for resale revenue, as discussed by Mr. Johnson and Mr. Kalich. These values
5 reflect fuel prices and market conditions for the 2016 rate year, but do not include the costs
6 associated with incremental load growth from the historical test year to the 2016 rate year.

7 The next column, **[J] Revenue Growth**, reflects Avista's revenue growth between
8 the test year and the 2016 rate year, by multiplying the retail revenue in column [E] times the
9 weighted revenue growth **Escalation Factor** in column [F]. The weighted revenue growth
10 escalation factor is determined on page 11 of Exhibit No. __ (EMA-2).

11 The incremental cost of power for the load change from the test year to 2016 was
12 determined by re-running the pro forma power supply modeling process using 2016 loads.
13 The Washington share of this result was compared to the Washington share of the pro forma
14 power supply with normalized test year loads. Column [J] includes the revenue growth as
15 well as the resulting change to net power supply costs. Incremental revenue related expenses
16 are computed on the incremental revenue using the components of the revenue conversion
17 factor provided on page 3 of Exhibit No. __ (EMA-2).

18 Adding columns [I], Pro-Formed Net Energy Cost, and [J], Revenue Growth, to
19 column [H], Trended 2016 Non-Energy Cost, produces the final column **[K], 2016 Revenue**
20 **and Cost**. This column is the final column of the 2016 electric Attrition Study calculation,
21 providing the 2016 attrition net operating income (\$89,797,000) and attrition total rate base

1 (\$1,483,501,000), at lines 31 and 49, respectively. These totals are brought forward to page
2 1, column (a), of Exhibit No. ____ (EMA-2).

3 **Q. Would you please explain what is shown on lines 54 to 56 of page 5 of**
4 **Exhibit No. ____ (EMA-2)?**

5 A. Yes. **Line 54** on page 5 of Exhibit No. ____ (EMA-2), shows the **Revenue**
6 **Requirement** of \$33,665,000 necessary for the Company to earn its requested 7.46% rate of
7 return (ROR) in 2016, prior to the application of the growth factor.

8 **Line 55** on page 5, provides the **Revenue Growth Factor** of 1.013115. Since the
9 rate increase in this proceeding will be applied to the twelve-months-ended September 30,
10 2014 test period billing determinants, it is necessary to divide the 2016 rate year, attrition-
11 adjusted revenue requirement by the revenue growth factor to reduce the revenue
12 requirement to be applied to the test period level of retail loads. The 1.013115 is produced
13 by dividing the sum of the retail revenues on lines 1 and 2 in column [K] by the sum of the
14 retail revenues on lines 1 and 2 in column [E].

15 Dividing line 54 (2016 revenue requirement) by the electric revenue growth factor of
16 1.013115, produces the amount shown on **line 56, Attrition Adjusted Revenue**
17 **Requirement**, of \$33,229,000, used by the Company in this proceeding.

18 **Q. Please explain pages 6 and 7 of Exhibit No. ____ (EMA-2).**

19 A. Pages 6 and 7 provide data from the annual normalized Commission Basis
20 Reports, showing Washington electric expenses and rate base for the periods 2001 through
21 2013. These data are used to analyze the annual growth rates in rate base and expenses, and
22 were used as the starting point for the growth rates used in the Attrition Adjustment.

1 **Q. What is included on page 8 of Exhibit No. __ (EMA-2)?**

2 A. Page 8 shows the development of electric adjusted data and balances for the
3 period 2001-2013 used to calculate the growth rates and escalation factors on page 9. The
4 escalation factors are intended to be used only on non-energy costs. Therefore it is necessary
5 to remove the energy-related costs and revenues from the historical data. The Washington
6 share of the normalized power supply costs and revenues from each year's Commission
7 Basis Report (CBR) filing are deducted from the O&M and Other Operating Revenue in the
8 historical reports. Similarly, adder schedule revenues and related expenses such as the DSM
9 Tariff Rider and the Residential Exchange Credit that were included in the CBRs are also
10 deducted from the historical results to create equivalent values for our trend analysis. (For
11 the years 2004 and 2006, and beginning in 2013, the CBR data already excluded DSM,
12 residential exchange and other adder schedule revenue and expense adjustments, so
13 additional adjustments were not required.)

14 Results are presented for the following aggregated subtotals: Adjusted Operating
15 Expenses; Total Depreciation/Amortization; Adjusted Regulatory Amortization; Adjusted
16 Taxes Other Than Income Taxes; Net Plant After Deferred Income tax; Total Rate Base; and
17 Adjusted Other Revenues. These are used in the trend calculations shown on page 9.

18 **Q. Please explain page 9 of Exhibit No. __ (EMA-2).**

19 A. Page 9 shows the annual electric growth rate analysis, compound annual
20 growth rates to 2013, the resulting 1 ½ and 2 ¼ year escalation factors, and the final
21 escalation factors selected for use within the Attrition Study.

1 **Q. Please discuss the compound growth rate escalation factors utilized**
2 **within the Attrition Study, and why these particular growth rates were chosen.**

3 A. Avista lowered the annual growth rate escalation factor for O&M expenses to
4 reflect the recent cost-cutting measures implemented by the Company, and the expectation
5 that Avista will manage the growth in these expenses to a lower level in future years.¹³ (See
6 “Adopted Operating Expenses” factor shown on page 9, row 7A.) Although Avista’s
7 O&M/A&G costs have grown at an annual rate of approximately 5.7% per year for the past
8 six years (2007-2013), we have used a lower annual growth rate of 3% per year for our
9 Attrition Study.

10 The compound growth rates for the factors “Adjusted Taxes Other than Income” and
11 “Adjusted Other Revenue” used the calculated rates as shown on page 9.

12 With regard to depreciation expense and net plant investment, as discussed by Dr.
13 Forsyth, the annual growth depreciation expense and net plant was higher for 2007 to 2013,
14 as compared to 2001 to 2006, and is expected to trend higher still from 2014 to 2016. Based
15 on the Company’s plan for higher transfers to plant for 2014 to 2016, the Company used
16 adjusted compound growth rates to reflect the higher growth in rate base and depreciation
17 expenses. (See “Adopted Depreciation/Amortization” and “Adopted Net Plant After
18 Deferred Income Taxes” factors shown on page 9, rows 8A and 10A.)

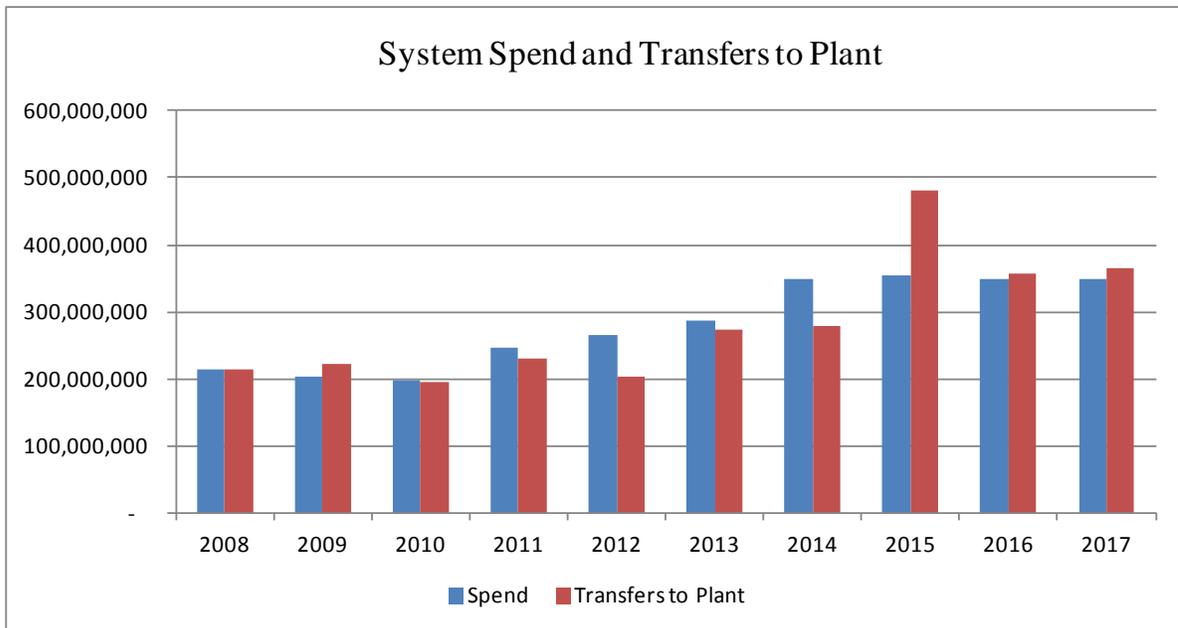
19 **Q. Please explain the adjustment to the annual growth rate for net plant**
20 **investment and depreciation expense for the 2014 to 2016 period.**

¹³ Examples include the Voluntary Severance Incentive Plan (VSIP) initiated in 2012, and the pension and post retirement medical plan changes effective January 1, 2014, discussed by Mr. Morris.

1 A. As discussed by Mr. Thies and Ms. Schuh, the Company has increased its
 2 level of capital spending, and therefore increased its transfers to plant expected through
 3 2016. These increases in capital spending and transfers to plant impact the Company’s net
 4 rate base to be included during the rate year. Due to this accelerated level of transfers to
 5 plant for 2014 to 2016, it is necessary to increase the annual growth rate above the rate
 6 experienced from the 2007-2013 historical period. For that reason, the Company used the
 7 2014 to 2016 growth percentages to apply to the historical base period. Otherwise, the use
 8 of the historical trend (2007-2013) would significantly understate net plant investment and
 9 depreciation expense for 2016.

10 This significant increase in transfers to plant in 2015 is shown in Illustration No. 5
 11 below.

12 **Illustration No. 5**

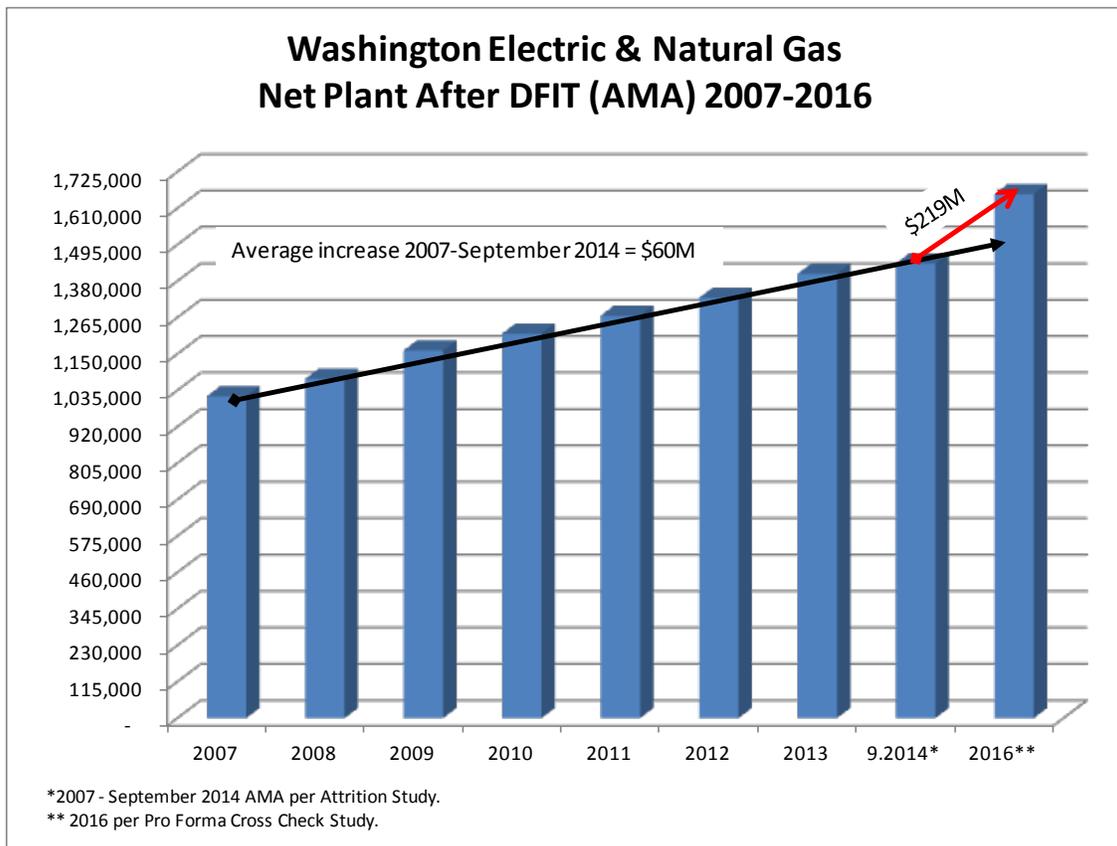


21

1 The blue bars in Illustration No. 5 above represent the actual capital spend from
 2 2008-2014, and expected spend from 2015-2017. The red bars represent actual transfers-to-
 3 plant from 2008-2014, and expected transfers for 2015-2017. The transfers to plant for 2015
 4 are significantly higher than recent years, which results in a significant increase in net plant
 5 expected in 2016 on an AMA basis, as shown in Illustration No. 6 below.

6 Illustration No. 6 shows the Washington electric and natural gas Net Plant After
 7 DFIT balances from 2007 to September 30, 2014, and expected for 2016, on an average-of-
 8 monthly-average (AMA) basis¹⁴.

9 **Illustrative No. 6**



21

¹⁴ The data included in Illustration No. 6 above, includes combined electric and natural gas Commission Basis Net Plant After DFIT balances for the period 2007 through 2016 on an AMA basis, as shown on page 10 of Exhibit Nos. (EMA-2) and (EMA-3).

1 In Illustration No. 6 above, the black arrow reflects the historical growth in net plant
2 (after DFIT) from 2007 to 2013, which reflects an average annual increase of \$60 million
3 during this time period. The red arrow reflects the increase in net plant (after DFIT) from
4 September 2014 to 2016 totaling \$219 million.

5 **Q. Why is there a significant increase in transfers to plant for 2015?**

6 A. Two major projects in particular cause the significant increase in transfers to
7 plant in 2015. The first project, related to the Company's Customer Information System
8 (Project Compass) was completed in February 2015 and has been transferred to plant-in-
9 service (approximately \$95.1 million (system)). The second project is the Nine Mile
10 Redevelopment project, which is in progress, and barring unusual circumstances, the
11 Company will transfer approximately \$51.3 million (system) to plant-in-service by
12 December 2015.

13 There are also a number of other projects, such as the Aldyl A Pipe Replacement,
14 Little Falls Powerhouse Redevelopment, and Cabinet Gorge Refurbishment projects, to
15 name a few, that are on schedule to transfer to plant-in-service during 2015. It is necessary
16 for this higher level of transfers to plant to be included in the attrition adjustment, in order to
17 reflect the proper level of rate base for 2016.

18 **Q. Please explain the page 10 of Exhibit No. __ (EMA-2).**

19 A. Page 10 of Exhibit No. __ (EMA-2) includes the calculation of the Adopted
20 Depreciation/Amortization and Adopted Net Plant After Deferred Income Taxes compound
21 growth factors discussed above. A separate chart, similar to Illustration No. 6, depicting the
22 change in net plant after DFIT for Washington electric and Washington natural gas are also

1 shown on page 10. These charts show that the average annual increase in Washington net
2 plant from 2007 through September 30, 2014 on an AMA basis was \$50 million for electric
3 and \$10 million for natural gas; however, for the period from September 30, 2014 through
4 2016 on an AMA basis, net plant after DFIT increases \$182 million for electric and \$37
5 million for natural gas during this time.

6 **Q. Please explain the final page of Exhibit No. __ (EMA-2), page 11.**

7 A. The final page of Exhibit No. __ (EMA-2), page 11, shows the calculation of
8 the growth in Avista's electric billing determinant index from September 2014 to 2016.
9 Column [A] shows the billing determinants from the September 2014 revenue model
10 supporting the Incremental Revenue Normalization Adjustment on pages 4 and 5, column
11 [D], discussed previously. These same billing determinants from the 2016 revenue forecast
12 are shown in column [B], then the percentage growth in the billing determinants from
13 September 2014 to 2016 is calculated in column [C]. Column [D] shows the associated
14 revenues from the September 2014 revenue model that were used to determine the weighting
15 in column [E]. Finally, the weighted growth for each billing determinant is calculated in
16 column [F] and the sum on line 19 is the 2016 escalation factor for retail revenue growth,
17 showing 1.31%.

18 **Natural Gas Attrition Study**

19 **Q. Before moving on to the Company's Natural Gas Attrition Study as**
20 **provided in Exhibit No. __ (EMA-3), are there similarities between the electric and**
21 **natural gas studies?**

1 A. Yes. The previous explanation of the exhibit pages and analysis for the
2 electric Attrition Study are similar for the natural gas Attrition Study. I will describe briefly
3 what can be found within Exhibit No. ____ (EMA-3), and any differences between various
4 exhibit pages and analysis.

5 **Q. Please explain what is shown on page 1 of the Natural Gas Attrition**
6 **Study provided as Exhibit No. ____ (EMA-3).**

7 A. Exhibit No. ____ (EMA-3), page 1, shows the calculation of the natural gas
8 general revenue requirement, based on the Company's natural gas Attrition Study analysis,
9 required to earn the 7.46% ROR proposed by the Company for its State of Washington
10 natural gas operations. Page 1 shows the 2016 natural gas revenue requirement of
11 \$12,021,000 (column (e)).

12 Column (a) of page 1, labeled **Attrition Balances**, shows the natural gas Attrition
13 Net Operating Income and Attrition Rate Base balances, from page 5 of Exhibit
14 No. ____ (EMA-3), column [K], lines 31 and 47.

15 Column (b) of page 1, labeled **Revenue Growth Factor**, shows the revenue growth
16 factor of 0.99763, from page 5 of Exhibit No. ____ (EMA-3), column [K], line 55. As
17 explained in the electric Attrition Study discussion above, my Attrition Study uses the
18 Company's forecast of loads and customers for 2016 to determine the revenue in 2016. I
19 have divided my rate year, attrition-adjusted revenue requirement by the revenue growth
20 factor to adjust the revenue requirement to be applied to the test period level of retail loads
21 and customers.

1 Column (c), labeled **Attrition Adjusted Balances**, shows the calculation of the
2 \$11,280,000 revenue requirement at the requested 7.46% rate of return based on the natural
3 gas Attrition Study “Attrition Rate Base” and “Attrition Net Operating Income” balances in
4 column (a) adjusted for the revenue growth factor from column (b).

5 Column (d), labeled **After Attrition Adjustments**, includes a revenue requirement
6 increase of \$741,000 from the Attrition Revenue Requirement amount in column (c) to
7 reflect atmospheric testing expenses not reflected in the September 30, 2014, normalized
8 Commission Basis results used as the starting point of the Company’s Attrition Analysis.¹⁵

9 Column (e), labeled **2016 Revenue Requirement**, reflects the final 2016 incremental
10 revenue requirement requested in this case of \$12,021,000. The resulting percentage
11 revenue increase above 2015 total general business revenues is 7.0%.

12 **Q. Would you please explain page 2 of Exhibit No. ____ (EMA-3)?**

13 A. Yes. Page 2 shows the proposed Cost of Capital and Capital Structure
14 utilized by the Company in this case, and the weighted average cost of capital 7.46%.

15 **Q. What does page 3 of Exhibit No. ____ (EMA-3) show?**

16 A. Page 3 shows the derivation of the natural gas net-operating-income-to-gross-
17 revenue conversion factor. The conversion factor takes into account uncollectible accounts

¹⁵ As discussed by Ms. Smith, Atmospheric testing is an inspection program which tests for conditions in the Company’s system that could lead to corrosion issues on customer meter sets. This program is a federally-mandated program that requires the Company to inspect all above ground steel pipe at a frequency not to exceed three-years. This expense includes the cost of transitioning the Atmospheric Corrosion (AC) inspection cycle from a three-year rotation between the Company’s jurisdictions (Washington, Idaho, and Oregon) to an inspection cycle that will be completed one third of each jurisdiction per year. The last inspection cycle in the Washington jurisdiction occurred in 2012. This adjustment includes \$707,000 of additional expense, or \$741,000 revenue requirement, as shown on page 1 of Exhibit No. __ (EMA-3).

1 receivable, Commission fees and Washington State excise taxes. Federal income taxes are
2 reflected at 35%.

3 **Q. Would you now please explain pages 4 through 11 of Exhibit**
4 **No. ____ (EMA-3)?**

5 A. Yes. Pages 4 and 5 provide Avista's 2016 natural gas attrition revenue
6 requirement calculation; pages 6 and 7 provide natural gas cost and revenue trend data for
7 the period 2001-2013 per historical Commission Basis results of operations; page 8 provides
8 summary data and the development of the escalation factors shown on page 9; page 9
9 presents the annual natural gas growth rate analysis, and includes the escalation factors used
10 in the Attrition Study on pages 4 and 5; page 10 shows the calculation of the "Adopted"
11 escalation factors used for determining depreciation/amortization and net plant after DFIT
12 trend percentages revised for planned higher capital expenditures through 2016; and the final
13 page, page 11, shows development of the natural gas weighted growth rate for the retail
14 revenue from the September 2014 test period to the 2016 rate period¹⁶.

15 **2016 Natural Gas Attrition Revenue Requirement**

16 **Q. You stated before that the natural gas Attrition Study is very similar to**
17 **the electric Attrition Study. Please point out any conceptual differences on pages 4**
18 **through 11 of Exhibit No. ____ (EMA-3) compared to the same pages of Exhibit**
19 **No. ____ (EMA-2).**

¹⁶ The weighted revenue growth percentages used for general business and transportation revenues on page 4 of Exhibit No. ____ (EMA-3) are -0.24% and -.014%, respectively. These reductions in growth are mainly due to a reduction in sales volumes expected for Schedule 101 (General Services); and Schedules 146 (Transportation Services) and 148 (Special contracts).

1 A. Gas costs are treated somewhat differently in the Company's natural gas rates
2 compared to electric rates because of the Purchased Gas Adjustment (PGA) process. The
3 cost of gas provided to natural gas customers is tracked through a deferral process, which
4 means that, to the extent actual costs of gas are higher or lower than the amount included in
5 customer revenue, the difference is set aside to be examined in the annual PGA filings,
6 where updated gas costs are determined. The gas cost portion of rates is now entirely
7 included in Schedule 150, which will not be changed as part of this general rate case, and
8 there is no proposed change to gas costs through the Attrition Study.

9 Pages 4 and 5 include the **EOP 12.14 Plant and Regulatory Amortization**
10 **Adjustment** in column [B], **Pro Forma Revenue Normalization Adjustment** in column
11 [C], and the exclusion of **Normalized Gas Costs and Revenues** is in column [D]. The
12 weighted revenue growth escalation factors on page 11 include PGA revenue, therefore in
13 order to determine the correct Revenue Growth in column [J] (pages 4 and 5), the gas cost
14 related retail revenue was added back to the base before multiplying it by the **Escalation**
15 **Factor** in column [F]. Transportation revenue growth was treated as a separate category,
16 resulting in two revenue growth escalation factors: one for sales and one for transportation.
17 Otherwise, in all material respects, the process is the same as in the electric Attrition Study.

18 **Q. Please explain the plant and regulatory amortization adjustment**
19 **included in column [C].**

20 A. As discussed previously in the 2016 Electric Attrition Revenue Requirement
21 Section, the plant related adjustment (adjusting September 30, 2014 AMA to December 31,
22 2014 EOP) included in column [C] reflects the additions to net plant rate base and

1 depreciation expense for the most recent historical period through December 31, 2014¹⁷.
 2 This portion of the adjustment added \$9.2 million in net plant and \$1.2 million in additional
 3 depreciation expense, and represents the most recent historical data available, used as the
 4 Company's base period for net plant and depreciation expense before trending to the 2016
 5 rate year.

6 Also included in column [C] is the regulatory amortization expense associated with a
 7 proposed two-year amortization of the deferred natural gas revenue requirement associated
 8 with the Company's Project Compass Customer Information System (CIS) for calendar year
 9 2015. The effect of this adjustment increases regulatory amortization expense by \$1.14
 10 million.¹⁸ The resulting regulatory amortization represents the balance expected during the
 11 2016 rate year, therefore, no escalation occurs for this balance as can be seen in column [C],
 12 page 4, row 22.

13 **Electric and Natural Gas Attrition Study Revenue Requirement Summaries**

14 **Q. Referring back to Illustrations No. 1 and 2 in your testimony, what were**
 15 **the actual and attrition-adjusted rates of return realized by the Company during the**
 16 **test period for its electric and natural gas operations?**

17 A. For the State of Washington, the actual test period rates of return were 8.17%
 18 for electric and 6.43% for natural gas. On a normalized basis, these rates of return were

¹⁷ New plant investment related to customer growth/revenue growth for the test period was adjusted to a December 31, 2014 EOP basis in this adjustment. Growth in new revenue plant is included in order to match growth in plant costs with related growth revenue included in the Attrition Study analysis.

¹⁸ As discussed by Ms. Smith, per the Settlement Stipulation, Docket No. UG-140189, Section III, paragraph 7, page 4-5, the Company was allowed to defer for recovery in a future proceeding the natural gas revenue requirement amount associated with the Project Compass Customer Information System for the calendar year 2015, based on the actual costs of the Project at the time the Project goes into service. The carrying charge on the deferral balance was set at 3.25%. As discussed further by Company witness Mr. Kensok, this project was moved into service in February of 2015.

1 7.39% for electric and 5.90% for natural gas. The attrition-adjusted rates of return are 6.05%
2 and 5.01% for electric and natural gas, respectively, under present rates. Thus, the Company
3 would not, on an attrition-adjusted basis for the test period, realize the 7.46% rate of return
4 requested by the Company in this case.

5 **Q. How much additional 2016 revenue would be required for the State of**
6 **Washington electric and natural gas operations to allow the Company an opportunity**
7 **to earn its proposed 7.46% rate of return on an attrition-adjusted basis in 2016?**

8 A. The revenue requirement deficiency totals \$33,229,000 for electric and
9 \$12,021,000 for natural gas, as shown on line 7, page 1 of Exhibit Nos. ____ (EMA-2) and
10 ____ (EMA-3), or an increase of 6.6% and 7.0%, for electric and natural gas respectively, over
11 2015 general business revenues.

12 **Q. How do these revenue requirement numbers compare with the results**
13 **from the electric and natural gas Pro Forma Cross Check Studies?**

14 A. As discussed by Ms. Smith, the Company prepared electric and natural gas
15 **Pro Forma Cross Check Studies.** The purpose of these were to provide a revenue
16 requirement analysis based on individual restating and pro forma adjustments, and a separate
17 independent analysis of Avista's need for revenue increases in 2016.

18 The total revenue requirement associated with Ms. Smith's electric Pro Forma Cross
19 Check Study is approximately \$33.1 million. By comparison, the electric revenue
20 requirement from the Attrition Study is approximately \$33.2 million. For natural gas, the
21 total revenue requirement associated with Ms. Smith's natural gas Pro Forma Cross Check

1 Study is \$10.6 million. By comparison, the natural gas revenue requirement from the
2 Attrition Study is \$12.0 million.

3 Furthermore, the Pro Forma Cross Check revenue requirement is reconciled to the
4 Attrition Study revenue requirement in order to establish revenue, expenses and rate base
5 numbers that can be used as inputs to the Company's cost of service studies prepared by Ms.
6 Knox (electric) and Mr. Miller (natural gas). The Pro Forma Electric and Pro Forma Natural
7 Gas Cross Check Studies are provided as Exhibit Nos. ____ (JSS-2) and ____ (JSS-3),
8 respectively.

9 **Q. Does that conclude your pre-filed direct testimony?**

10 A. Yes, it does.