

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12\_\_\_\_\_

DOCKET NO. UG-12\_\_\_\_\_

DIRECT TESTIMONY OF

DAVE B. DEFELICE

REPRESENTING AVISTA CORPORATION

1 **I. INTRODUCTION**

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

3 A. My name is Dave DeFelice. I am employed by Avista Corporation as a  
4 Senior Business Analyst. My business address is 1411 East Mission, Spokane, Washington.

5 **Q. Please briefly describe your educational background and professional**  
6 **experience.**

7 A. I graduated from Eastern Washington University in June of 1983 with a  
8 Bachelor of Arts Degree in Business Administration, majoring in Accounting. I have served  
9 in various positions within the Company, including Analyst positions in the Finance  
10 Department (Rates Section and Plant Accounting) and in the Marketing/Operations  
11 Departments, as well. In 1999, I accepted the Senior Business Analyst position that focuses  
12 on economic analysis of various project proposals as well as evaluations and  
13 recommendations pertaining to business policies and practices.

14 **Q. As a Senior Business Analyst, what are your responsibilities?**

15 A. As a Senior Business Analyst, I am involved in financial analysis of  
16 numerous projects within various departments such as Engineering, Operations,  
17 Marketing/Sales and Finance.

18 **Q. What is the scope of your testimony?**

19 A. My testimony and exhibits in this proceeding will cover the Company's  
20 proposed pro forma adjustment for capital investments in utility plant for the 2011 test  
21 period. I will also discuss the planned 2012 and 2013 capital investment activity. In  
22 addition, my testimony and exhibits will cover the Company's proposed changes in

1 depreciation rates pertaining to electric and natural gas plant-in-service using the recently  
2 completed depreciation study.

3 A table of contents for my testimony is as follows:

4	<u>Description</u>	<u>Page</u>
5	I. Introduction	1
6	II. 2011 Capital Additions	2
7	III. 2012 and 2013 Capital Additions	4
8	IV. Depreciation Study	31

9

10 **Q. Are you sponsoring any exhibits?**

11 A. Yes. I am sponsoring Exhibit Nos. \_\_\_(DBD-2) through (DBD-6) which were  
12 prepared under my direction, and have been included to provide supporting information for  
13 the capital investment costs and the depreciation study adjustment as described in this  
14 testimony. Additional workpapers, including the detailed Depreciation Study prepared by  
15 Gannett Fleming, Inc., are included with the Company's filing.

16

17

## **II. 2011 CAPITAL ADDITIONS**

18 **Q. What does the Company's request for rate relief include regarding**  
19 **investment in utility plant that was in service at December 31, 2011?**

20 A. As in prior rate cases, Avista started with rate base for the historical test year,  
21 which, for this case, is the average-of-monthly-averages (AMA) for the twelve months ended  
22 December 31, 2011. A pro forma adjustment<sup>1</sup> was made to restate plant-in-service at  
23 December 31, 2011, together with the associated accumulated depreciation and deferred  
24 federal income taxes at a 2011 end-of-period (EOP) basis. This adjustment includes

1 annualizing the associated depreciation expense on the plant-in-service at December 31,  
 2 2011.

3 **Q. What is the net impact to electric rate base for the 2011 capital**  
 4 **adjustment pro formed in this case?**

5 A. Electric net rate base for capital investment as of year-end 2011 increased  
 6 \$30,914,000, from \$1,090,762,000 to \$1,121,676,000. Table 1 below summarizes the  
 7 adjustment included in the case.

8 **Table 1:**

9

(\$000's)	Pro Forma Adjustment		Rate Base 12/31/11 EOP
	Rate Base 2011 AMA	Adjust 2011 to EOP Basis	
Plant	\$ 1,955,287	\$ 51,281	\$ 2,006,568
A/D	(666,984)	(14,034)	(681,018)
DFIT	(197,541)	(6,333)	(203,874)
Rate Base	\$ 1,090,762	\$ 30,914	\$ 1,121,676

15

16 **Q. What was the net impact to natural gas rate base for the 2011 capital**  
 17 **adjustment pro formed in this case?**

18 A. Natural gas net rate base for capital investment as of year-end 2011 increased  
 19 \$7,166,000, from \$184,451,000 to \$191,617,000. Table 2 below summarizes the adjustment  
 20 included in the case.

21

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<sup>11</sup> Company witness Ms. Andrews incorporates the Washington share of the adjustment in her revenue requirement calculation.

**Table 2:**

(\$000's)	Pro Forma Adjustment		Rate Base 12/31/11 EOP
	Rate Base 2011 AMA	Adjust 2011 to EOP Basis	
Plant	\$ 342,258	\$ 11,136	\$ 353,394
A/D	(116,701)	(1,613)	(118,314)
DFIT	(41,106)	(2,357)	(43,463)
Rate Base	<u>\$ 184,451</u>	<u>\$ 7,166</u>	<u>\$ 191,617</u>

**Q. What was the approach to computing the pro forma adjustment for investment in capital projects at December 31, 2011?**

A. The Company adjusted the test period December 31, 2011 rate base stated on an AMA basis to an EOP basis. The revenue-producing distribution plant for the 2011 capital additions was not adjusted to EOP, to maintain the matching of revenues and costs associated with these assets. Ms. Andrews includes the 2011 pro forma rate base adjustment in her calculation of revenue requirement.

## **II. 2012 AND 2013 CAPITAL ADDITIONS**

**Q. What is the purpose of preparing the information with respect to the 2012 and 2013 capital additions?**

A. The Attrition Adjustment sponsored by Company witness Dr. Lowry is used in deriving the revenue requirement, and through a trending analysis, captures additional capital expenditures in 2012 and the 2013 rate year. As explained by Company witness Mr. Norwood, Dr. Lowry used a historical trend analysis to develop a total, attrition-adjusted

1 revenue requirement for the Company. His revenue requirement includes the shortfall that  
2 existed during the 2011 test period as well as the shortfall that exists between the 2011 test  
3 period and the 2013 rate year.

4 Ms. Andrews, on the other hand, used specific, traditional, pro forma adjustments  
5 coupled with an analysis of planned capital expenditures and DSM-related attrition through  
6 the 2013 rate year. The results of her analysis are consistent with those of Dr. Lowry, even  
7 though both approached the issue in an entirely different way: Dr. Lowry developed an  
8 Attrition Adjustment based on trending of historical data (as in prior attrition studies  
9 accepted by this Commission), while Ms. Andrews essentially arrived at a revenue shortfall  
10 based on actual, planned investments and the impact of DSM through 2013.

11 **Q. For her part, how did Ms. Andrews reflect the impact of 2012 and 2013**  
12 **capital additions?**

13 A. For 2012, she included all 2012 capital additions (excluding distribution-  
14 related capital expenditures made that are associated with connecting new customers to the  
15 Company's system), together with the associated accumulated depreciation and deferred  
16 federal income taxes at a 2012 EOP basis. This included associated depreciation expense for  
17 the capital additions. These specific capital additions are identified later in my testimony. In  
18 addition, the plant-in-service at December 31, 2011 was adjusted to a 2012 EOP basis.

19 She also reflected all 2013 capital additions (excluding distribution-related capital  
20 expenditures made that are associated with connecting new customers to the Company's  
21 system) together with the associated accumulated depreciation and deferred federal income  
22 taxes at a 2013 AMA basis. This included associated depreciation expense for the capital

1 additions. These specific capital additions are identified later in my testimony. In addition,  
2 the plant-in-service at December 31, 2011 and the 2012 capital additions were adjusted to a  
3 2013 AMA basis.

4 **Q. Does this analysis reflect a matching of revenues and expenses?**

5 A. Yes. The utility plant investment that we have included in this filing  
6 represents utility plant that will be "used and useful" in providing service to customers  
7 during the period that new retail rates from this filing will be in effect. In addition, the plant  
8 investment that was included in this case was matched with offsetting factors. Including the  
9 costs associated with this investment in retail rates provides a proper "matching" of revenues  
10 from customers, with the costs associated with providing service to customers (including the  
11 cost of utility plant to serve those customers). The objective has been to include in retail  
12 rates the investment, or rate base, that is providing service to customers, and ensure that  
13 there is a proper matching of revenues and expenses during the period that rates are in effect.

14 **Q. How are we assured that the capital additions that were analyzed in this**  
15 **case will actually occur for 2012 and 2013?**

16 A. Many of the 2012 projects are already underway or completed either through  
17 actual construction, contracts signed, and /or materials ordered. In addition, the actual and  
18 planned capital expenditures for the utility for the years 2007 through 2011 are shown in  
19 Table 3 below. The table shows that actual capital expenditures have been very close to the  
20 planned expenditures on a consistent basis. In fact, the five year average of actual  
21 expenditures is 99.8% of the planned expenditures. I believe it is fair to conclude that there

1 is a high level of confidence that the planned capital expenditures for 2012 and 2013 will  
 2 occur and it is reasonable for them to be included for recovery in retail rates.

3 **Table 3:**

	Planned Expenditures (\$ millions)	Actual Expenditures (\$ millions)	Percentage of Planned
2007	\$183.6	\$198.4	108%
2008	\$194.2	\$205.4	106%
2009	\$202.0	\$199.7	99%
2010	\$228.3	\$213.5	94%
2011	\$249.1	\$237.7	95%
<b>Five Year Average</b>	<b>\$211.4</b>	<b>\$210.9</b>	<b>99.8%</b>

4

5 **Q. How does new investment in utility plant change rate base over time for**  
 6 **ratemaking purposes?**

7 A. Historically (until roughly the last six years), the annual dollars spent by the  
 8 Company on new utility plant was relatively close to the level of depreciation expense, with  
 9 the exception of years where the Company invested in major new generating projects.<sup>2</sup> Net  
 10 rate base stayed at a relatively constant level and the use of the rate base amount from a prior  
 11 year, i.e., a historical test year, was adequate for setting rates for the upcoming year, because  
 12 there was little change in the net plant investment used to serve customers.

13 In more recent years, however, Avista's investment in utility plant has significantly  
 14 exceeded depreciation expense. Because of this, rate base in the rate year is significantly  
 15 greater than the historical test period AMA rate base. This is shown in Illustration 1 below.

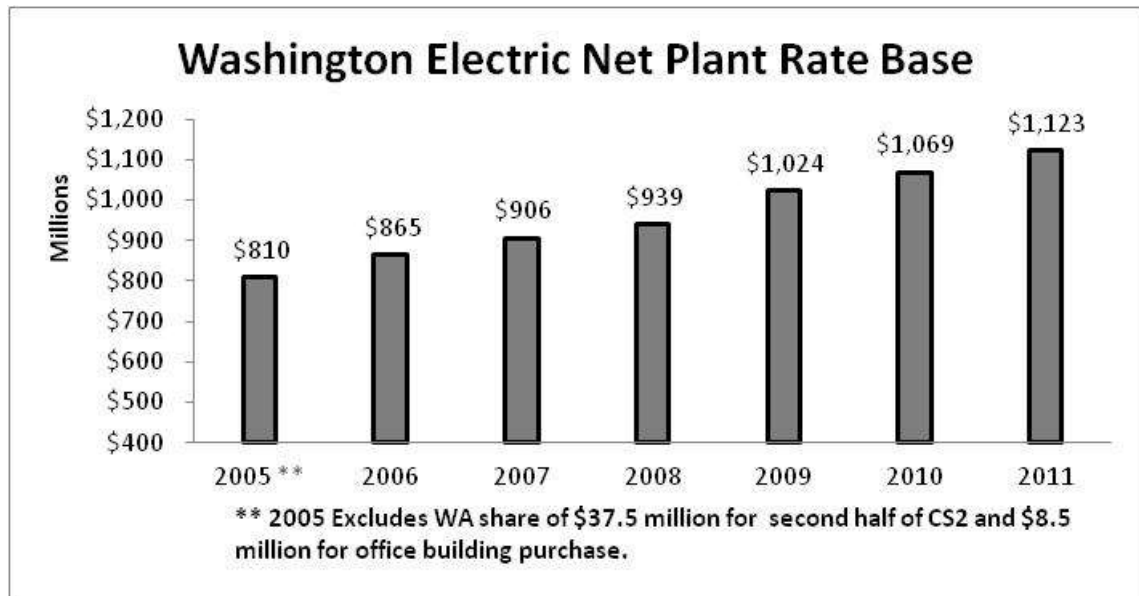
16

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<sup>2</sup> The Company recognizes that a portion of the costs associated with certain capital additions are offset by additional revenues, and has made the necessary adjustments to reflect this.



1 **Illustration 1:**



10

11 The only way to ensure that retail rates are fair, just, reasonable, and sufficient is for

12 the utility plant investment that is being used to serve customers be properly reflected in

13 retail rates, net of appropriate offsets. This makes it necessary for the Company to include

14 plant investment that is in service after the historical test year, and will be in service during

15 the rate year so that rate base for the rate year is representative of the level of investment

16 used to serve customers. The Company's pro forma and attrition adjustments in this case

17 properly reflect any offsets, and include adjustments to ensure a proper matching with test

18 period loads.

19 **Q. What is the historical and projected level of annual capital spending for**

20 **Avista?**

21 A. Avista's annual capital requirements have steadily increased from

22 approximately \$130 million in 2005 to approximately \$260 million in 2012. Capital

1 expenditures of approximately \$509 million are planned for 2012-2013 for customer growth,  
2 investment in generation upgrades and transmission and distribution facilities, as well as  
3 necessary maintenance and replacements of our natural gas utility systems. Capital  
4 expenditures of approximately \$1.2 billion are planned for the five year period ending  
5 December 31, 2016. Exhibit No. \_\_\_\_ (DBD-2) reflects this trend that Avista has experienced  
6 and what is planned for in the near future.

7 **Q. What is driving the significant investment in new utility plant?**

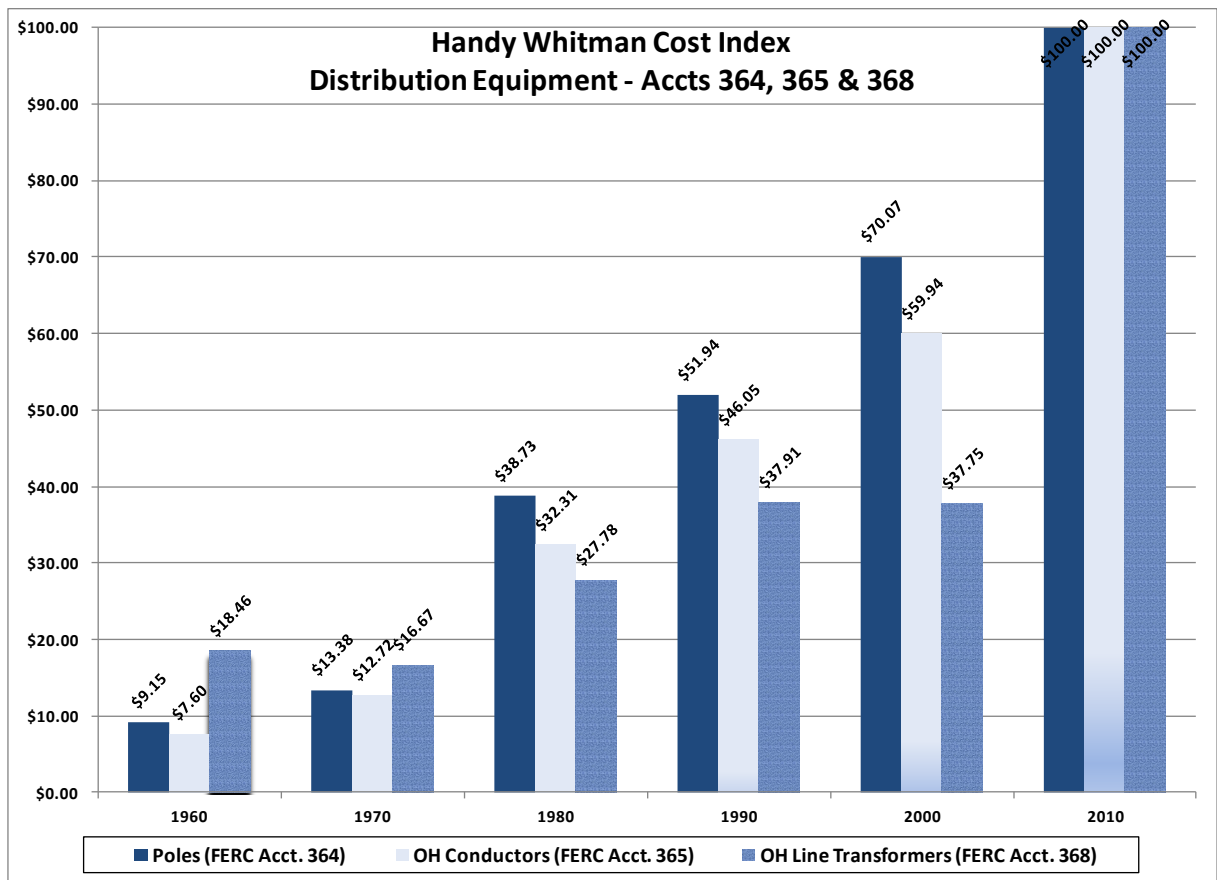
8 A. As Company witnesses Mr. Kinney and Mr. Lafferty, in particular, explain in  
9 their testimony, the Company is being required to add or upgrade new generation facilities  
10 and expand transmission and distribution facilities due in part to customer growth and  
11 reliability requirements. Other issues driving the need for capital investment include an  
12 aging infrastructure, and municipal compliance issues (e.g., street/highway relocations), etc.

13 While the rate of increases experienced in recent years for the cost of materials  
14 (concrete, copper, steel, etc.) has abated somewhat, the cost of materials and equipment is  
15 still orders of magnitude higher than what they were even a few years ago, causing the cost  
16 of these new facilities to be significantly higher than in the past. Accordingly, the annual  
17 costs associated with the new facilities will be significantly higher than the annual costs of  
18 the Company's older, existing facilities.

19 **Q. What data is available that depicts the increase in the cost of utility plant**  
20 **assets that have been added in recent years, as compared to the cost of the facilities**  
21 **being replaced?**

1 A. Using the Handy-Whitman Index Manual<sup>3</sup>, the Company analyzed several  
 2 major categories of plant. Exhibit No. \_\_\_(DBD-3) depicts the increases in costs of  
 3 transmission substations, transmission equipment, distribution substations, and distribution  
 4 equipment that the utility industry has experienced over the past fifty years. These charts  
 5 show what these categories of plant have cost historically on a relative scale. For example,  
 6 on Page 4 of Exhibit No. \_\_\_(DBD-3), and also shown in Illustration 2 below, distribution  
 7 poles fifty years ago would have a cost of only 9% of the current replacement cost.

8 **Illustration 2:**



<sup>3</sup> “The Handy-Whitman Index of Public Utility Construction Costs”, published by Whitman, Requardt and Associates, Baltimore, Maryland. The Handy-Whitman Indexes of Public Utility Construction Costs show the level of costs for different types of utility construction. Separate indices are maintained for general items of construction, such as reinforced concrete, and specific items of material or equipment, such as pipe or turbo-generators. Handy-Whitman Index numbers are used to trend earlier valuations and original cost at prices prevailing at a certain date.

1           The charts on Exhibit No. \_\_\_(DBD-3), show that the cost of the same equipment  
2           and facilities that are being added today are many times more expensive than those facilities  
3           installed in the past. Our retail rates are "cost-based" and reflect the low cost of the old  
4           equipment serving customers. When the equipment is replaced, it requires an increase in  
5           rates to reflect the much higher cost of the new equipment.

6           **Q.     With respect to Avista's 2012 and 2013 capital additions, would there be**  
7           **some operation and maintenance (O&M) savings associated with the replacement of**  
8           **some of the aging equipment with new equipment?**

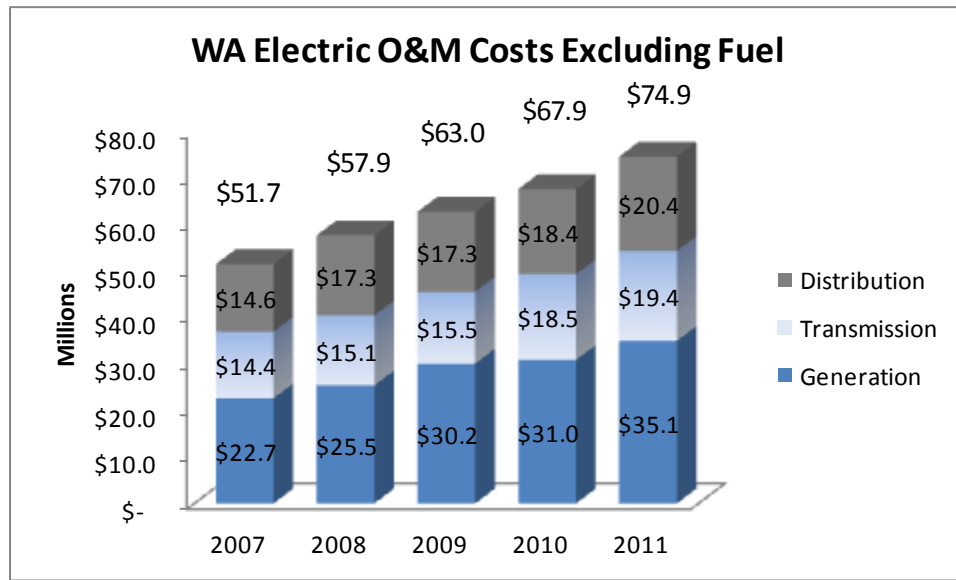
9           A.     Not when you look at the total utility as a whole, which is how ratemaking is  
10          done.<sup>4</sup> At some point our facilities approach the end of their useful lives and need to be  
11          replaced before they fail. Our general practice is to attempt to replace our aging equipment  
12          before it fails, because it is not only less costly to replace this equipment on a structured,  
13          planned basis, but it also results in more reliable service to customers, which is expected by  
14          all utility stakeholders. If our practice were to avoid replacing utility equipment until it  
15          failed, the reliability of our system would suffer.

16          Therefore, it is imperative that we continue every year to reinvest and upgrade a  
17          portion of our utility system, in addition to the investments needed to meet mandatory  
18          reliability requirements, so that our system will continue to provide reliable service. On a  
19          net basis, we will continue to experience O&M costs to maintain a system that continues to  
20          age. Our O&M costs are continuing to go up over time, not down, as shown in Illustration 3  
21          below.

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<sup>4</sup> As described below, all of the 2012 and 2013 capital additions were reviewed for any offsets and any specific offset that was identified was included a reduction to O&M costs.

**Illustration 3:**



The reinvestment and upgrades actually serve, to a large extent, to allow the Company to avoid additional costs in the future associated with maintenance – not to reduce the overall level of existing O&M costs.

**Q. Please provide a listing of the 2012 capital projects that were included in Ms. Andrews' analysis.**

A. Exhibit No.\_\_(DBD-4), details the system-level capital projects that will be transferred to plant in 2012. A listing and/or description of the capital projects and their system costs that will transfer to plant-in-service in 2012 follows:

**Generation (\$47.243 million - system):**

The electric generation projects that will transfer to plant-in-service are described in detail in Mr. Lafferty’s direct testimony, Exhibit No.\_\_(RJL-1T). A listing of these projects follows:

- Thermal - Coyote Springs Capital Projects - \$3,804,000
- Thermal - Coyote Springs LTSA Cash Accrual - \$8,945,000
- Thermal - Colstrip - \$2,900,000

- 1 Hydro - Noxon Rapids Unit 4 Runner Upgrade - \$8,300,000
- 2 Hydro - Base Hydro - \$1,427,000
- 3 Hydro - Regulating Hydro - \$2,908,000
- 4 Hydro - Kettle Falls Capital Projects - \$3,622,000
- 5 Hydro - Little Falls Powerhouse Redevelopment - \$3,300,000
- 6 Hydro - Post Falls Intake Gate Replacement - \$4,600,000
- 7 Hydro - Clark Fork Implement PME Agreement - \$3,883,000
- 8 Hydro - Spokane River Implementation (PM&E) - \$3,260,000
- 9 Hydro - Other Small - \$294,000

10

11 **Electric Transmission (\$25.974 million - system):**

12 The electric transmission projects that will transfer to plant-in-service are described  
 13 in detail in Mr. Kinney’s direct testimony, Exhibit No. \_\_ (SJK-1T). A listing of these  
 14 projects and system costs follows:

15

16 **Reliability Compliance Projects**

- 17 Spokane-CDA 115 kV Line Relay Upgrades - \$900,000
- 18 SCADA Replacement - \$1,262,000
- 19 System-Replace/Install Capacitor Banks - \$1,627,000
- 20 Bronx Cabinet 115 kV Substation Rebuild - \$2,500,000
- 21 Power Transformers - Transmission - \$600,000

22

23 **Contractual Required Projects**

- 24 Thornton 230kV Switching Station - \$4,350,000
- 25 Colstrip Transmission - \$410,000
- 26 Tribal Permits - \$325,000

27

28 **Reliability Improvement Projects**

- 29 Moscow City-N Lewiston 115kV Reconductor - \$2,500,000
- 30 Burke Thompson A&B 115kV Reconductor - \$2,500,000
- 31 Millwood 115 kV Substation Rebuild - \$690,000
- 32 Noxon-Hot Springs 230 kV Line Re-route - \$500,000
- 33 Pullman (Turner) Substation Rebuild - \$151,000

34

35 **Reliability Replacement Transmission Projects**

- 36 Transmission Minor Rebuilds - \$2,370,000
- 37 Power Circuit Breakers - \$1,200,000
- 38 Hatwai 230 kV Breaker Replacement - \$610,000
- 39 Transmission Asset Management Projects - \$3,479,000

40

41

1           **Electric Distribution (\$64.431 million - system):**

2  
3           **Washington Distribution Projects**

4           The Washington-specific electric distribution projects totaling \$25.082 million that  
5           will transfer to plant-in-service are described in detail in Mr. Kinney’s direct  
6           testimony, Exhibit No.\_\_(SJK-1T). A listing of these projects follows:

- 7  
8           Wood Pole Management - \$9,449,000  
9           System Efficiency Feeder Rebuild - \$7,371,000  
10          PCB Related Distribution Rebuilds - \$1,755,000  
11          Distribution – Spokane North & West - \$1,910,000  
12          System Distribution Reliability Improve Worst Feeders - \$1,228,000  
13          Millwood Substation Rebuild - \$1,000,000  
14          Power Transformer Distribution - \$958,000  
15          Pullman (Turner) Substation Rebuild - \$609,000  
16          Metro feeder upgrade - \$502,000  
17          Wood Substation Rebuild – Orin - \$300,000

18  
19          **Washington Distribution Replacement Projects**

20          The Washington specific Distribution equipment replacements and minor rebuilds  
21          projects totaling \$10.460 million that will transfer to plant-in-service are described in  
22          Mr. Kinney’s direct testimony, Exhibit No.\_\_(SJK-1T). A listing of these projects  
23          follows:

- 24  
25          Electric Distribution Minor Blanket Projects - \$5,065,000  
26          Failed Electric Plant Distribution Line Relocation - \$1,186,000  
27          Distribution Line Relocation - \$1,208,000  
28          Electric Underground Replacement - \$1,351,000  
29          Spokane Electric Network Increase Capacity - \$1,650,000

30  
31          **Washington Smart Grid Projects**

32          The Washington specific Distribution equipment Smart Grid projects totaling \$13.0  
33          million that will transfer to plant-in-service are described in Company witness Mr.  
34          Kopczynski’s direct testimony, Exhibit No.\_\_(DFK-1T). A listing of these projects  
35          follows:

- 36  
37          Spokane Smart Circuit Project - \$5,400,000  
38          Pullman Smart Grid Demonstration Project - \$6,300,000  
39          Smart Grid Workforce Training Project - \$1,300,000

40  
41          **Idaho Distribution Projects**

42          The following electric distribution projects are specific to the Idaho jurisdiction.

- 43  
44          Idaho Distribution and Replacement Projects - \$12,229,000

1 Blue Creek 115kV Rebuild - \$1,905,000  
 2 Distribution – Pullman & Lewis Clark - \$650,000  
 3 Distribution – Cda East & North - \$855,000  
 4 10 & Stewart Dx Int - \$250,000  
 5

6 **General (\$20.027 million - system):**

7 **Security Initiative - \$500,000**

8 Various security measures including cameras and access controls for the office and  
 9 branch facilities.  
 10

11 **Structures and Improvements - \$5,757,000**

12 This is a group of capital maintenance projects that Facilities Management  
 13 coordinates at the Spokane Central Operating Facilities and Avista branch facilities -  
 14 offices and service centers. For 2012, planned projects include: roof replacements,  
 15 HVAC system replacement at some branch offices, energy efficiency window and  
 16 lighting projects, security projects, asphalt overlays and replacement, as well as some  
 17 capital repair projects in existing buildings.  
 18

19 **Office Furniture - \$520,000**

20 This project is for the capital maintenance, improvements, and furniture for 50 plus  
 21 Avista Offices and Service Centers (over 700,000 square feet total).  
 22

23 **Stores Equipment - \$450,000**

24 Equipment utilized in warehouses throughout the service territory. This includes  
 25 equipment such as forklifts, manlifts, shelving, cutting/binding machines, etc.  
 26

27 **Tools, Lab & Shop Equipment - \$1,250,000**

28 Expenditures in this category include all large tools and instruments used throughout  
 29 the Company for gas and/or electric construction and maintenance work, distribution,  
 30 transmission, or generation operations, telecommunications, and some fleet  
 31 equipment (hoists, winch, etc) not permanently attached to the vehicle.  
 32

33 **HVAC Renovation Project - \$4,300,000**

34 The heating, ventilating, and air conditioning systems throughout the Spokane  
 35 Central Operating Facilities are approximately fifty years old and are in need of  
 36 replacement. In 2007, the Company initiated a multi-year HVAC renovation project  
 37 that involves replacing central air handling units and distribution systems in three  
 38 buildings - the Spokane Service Center, the general office building, and the cafeteria  
 39 auditorium building. The building envelope of the general office building was also  
 40 renovated with high efficiency glass and insulation. The project will also achieve  
 41 asbestos abatement and life safety (fire sprinkler) additions. New controls will also  
 42 be installed which will enable energy conservation. Present estimates indicate cost  
 43 savings of approximately \$430,000 per year in energy use, a 36% reduction in energy



1 costs once all phases have been completed, currently planned to be completed in  
2 2013. The 2012 project will produce approximately \$31,000 per year (system) in  
3 reduced energy costs, which have been reflected as a reduction to O&M costs.  
4

5 **Dollar Road Land Purchase & Facility Expansion - \$2,500,000**

6 In order to accommodate expansion in our Natural Gas department, an additional 8  
7 acre parcel was purchased adjacent to our Dollar Road Service Center. Site  
8 improvements required by the City and County were completed in 2010 and 2011. In  
9 2011, Avista constructed a 6000 sq. ft. storage building designed to protect valuable  
10 construction equipment from the weather. Gas meters are currently being stored in  
11 the facility as well as construction equipment used to install gas distribution pipe. In  
12 2012, Avista will construct a 12,900 sq. ft. 6-bay fleet facility. The facility will  
13 enable Avista to service CNG vehicles and gas department vehicles on-site. The  
14 service of the gas vehicles is currently taking place at a leased facility several miles  
15 north of the Dollar Rd. property. The Dollar Rd. expansion will include a CNG  
16 filling station for the Avista fleet and CNG customers. The justification of the fleet  
17 facility is found in efficiencies gained by having mechanics on-site to maintain  
18 Avista vehicles. \$2.5 million is budgeted for the Fleet expansion in 2012. Avista will  
19 close down the leased Madelia Facility upon the completion of the Dollar Road Fleet  
20 Facility Expansion.  
21

22 **Long Term Campus Re-Structuring Plan - \$4,500,000**

23 The campus restructuring plan is a 2-year, 3 phase plan to address critical parking  
24 and office space needs. Avista employees are forced to park on residential streets  
25 which sometimes disturbs our neighbors. Moreover, Avista does not meet the  
26 current city requirements for handicap and carpool parking spaces. The campus  
27 restructuring will create 109 additional parking spaces for employees inside of the  
28 Avista property. Avista is currently leasing office space for 75 employees that  
29 cannot fit into the current facility layout. In 2012, Avista will construct a \$4,500,000  
30 - 30,000 sq. ft. contemporary warehouse to replace a warehouse that was designed to  
31 meet the needs of a 1950's utility. In 2013, Facilities will remodel the old warehouse  
32 to then accommodate 120 cubicles, meeting rooms, offices and restroom facilities.  
33 By remodeling the old warehouse, Avista will make wise use of the square footage  
34 and return employees to a central location. The budget for the warehouse renovation  
35 is \$5,000,000. The 3<sup>rd</sup> phase of the plan is to construct a 50 space parking lot on the  
36 Ross Court property adjacent to the Avista campus.  
37

38 **WSDOT Highway Preservation/Maintenance of Right of Ways - \$250,000**

39 In order to operate our electric system within State highway rights-of-way, the  
40 Company needs to preserve/maintain right-of-ways. Existing right of ways have  
41 expired and Avista must seek new agreements with the State.  
42

**Transportation (\$11.293 million - system):****Transportation Equipment - \$11,293,000**

Expenditures are for the scheduled replacement of trucks, off-road construction equipment and trailers that meet the Company's guidelines for replacement including age, mileage, hours of use and overall condition. This also includes additions to the fleet for new positions or crews working to support the maintenance and construction of our electric and natural gas operations.

**Technology (\$39.558 million - system):****Information Technology Refresh Blanket - \$9,974,000**

A program to replace obsolete technology according to Avista's refresh cycles that are generally driven by hardware/software manufacturer and industry trends to maintain business operations.

**Information Technology Expansion Blanket - \$6,863,000**

A program to deliver technology associated with expansion of existing solutions.

**Enterprise Business Continuity - \$482,000**

Avista has developed an Enterprise Business Continuity Plan (EBCP) to facilitate emergency response and business continuity activities in fulfillment of our mission. The program supports the Enterprise Business Continuity objectives by providing a framework for emergency response, technology recovery, alternate facilities and business continuity activities. The program provides communications, escalation and operational procedures necessary for efficient response to events. Support of the Enterprise Business Continuity Plan mitigates risk and minimizes the impact on the shareholders, customers, employees, and the community during and following an incident requiring activation of the EBCP. Through the development and maintenance of standardized mission critical plans and comprehensive alternate facilities planning, exercises and testing, the response, recovery and restoration efforts are synchronized, which in turn, lowers the risk of direct, indirect, tangible or intangible losses. Through on-going development, maintenance, review, and testing of the critical alternate operating procedures in support of critical business processes, process and procedure gaps are identified. This process will ensure the readiness of systems, procedures, processes, and people during emergency operations and provide an environment of constant improvement.

**IT for Facilities Projects - \$430,000**

This project is for the additional technology required to support remodeling or other facility work.

**Technology Projects Minor Blanket - \$560,000**

This item is intended to be used for small technology projects. These projects are small items that provide for improvements in how Avista provides services to our

1 customers. Examples of projects approved under this program are adding new  
2 features and functions to the Claims system, adding an additional module to the  
3 Rates Software product, adding additional software for Apprentice Craft training and  
4 adding additional features to the Contract Management System.  
5

6 **Moducom Replacement - \$2,389,000**

7 This project is to replace the critical crew communication system that facilitates the  
8 coordination of Avista's crews for the restoration, operations and installation of  
9 electric and gas services to our customers.  
10

11 **Microwave Replacement Project - \$1,200,000**

12 The project is designed to replace the aging and no longer supported microwave  
13 equipment with a supported technology. These systems support the communication  
14 for protection and relaying of the electrical transmission systems that allow the  
15 reliable delivery of electricity throughout our service territory.  
16

17 **DIMP Infrastructure - \$1,300,000**

18 This project is for adding functionality to the Gas Compliance Application to meet  
19 the mandated requirements of the Distribution Integrity Management Program  
20 (DIMP).  
21

22 **Next Generation Radio - \$14,125,000**

23 This project is refreshing Avista's 20 year old Land Mobile Radio (LMR) system that  
24 is used for critical crew communications during outage restoration and daily  
25 operations of maintaining the electric and natural gas distribution and transmission  
26 systems. Avista continues to maintain a private Land Mobile Radio system because  
27 the offerings available from public providers cannot provide communication  
28 throughout our rural service territory and, as a portion of our nation's critical  
29 infrastructure, it is imperative that Avista have a communication system that will  
30 operate in the event of a disaster to help safeguard the general public. The driver for  
31 this project is a mandate from the Federal Communications Commission (FCC). The  
32 FCC has, through Rule Making and Order no. RM-9332 release date December 23,  
33 2004, ruled that all licensees in the Industrial/Business Radio Pool operating in the  
34 150-174 MHz and 421-512 MHz bands migrate to spectrum efficient narrowband  
35 technology by January 1, 2013. Failure to act would result in violation of the FCC  
36 Narrow banding mandate (Rule 9332), and as quoted from the order, "Operation in  
37 violation of the Commission's rules may subject licensees to appropriate enforcement  
38 action, including admonishments, license revocation, and/or monetary forfeitures of  
39 up to \$16,000 for each such violation or each day of a continuing violation and up to  
40 \$112,500 for any single act or failure to act."  
41

42 **High Voltage Protection Upgrade - \$2,235,000**

43 This project is for changes at substations to improve the safety of telecommunication  
44 personnel and equipment. Telecommunication companies identified a concern with

1 the safety of their employees around communication equipment located at high  
 2 voltage substations. The result was that high voltage protection & isolation standards  
 3 were created requiring that Avista take corrective actions or risk having the  
 4 communication circuits to substations disabled. This affects Phone, Modem,  
 5 SCADA, and / or Metering & Monitoring systems at the substations. This project  
 6 was created to mitigate this risk as well as to lower potential risks to personnel and  
 7 equipment.

8  
 9 **Jackson Prairie Storage (\$0.630 million - system):**

10 **Jackson Prairie Storage Project - \$630,000**

11 These projects include various capital improvements that Avista and its partners will  
 12 complete at Jackson Prairie facility in 2012.

13  
 14 **Natural Gas Distribution (\$24.547 million - system):**

15 **Gas Reinforce – Minor Blanket - \$975,000**

16 This annual project will reinforce portions of the existing natural gas system to  
 17 ensure continued reliable service during a design day for areas that have had low  
 18 pressure problems due to increased growth and/or system demand. This project will  
 19 identify and install new sections of gas main to improve the operating reliability and  
 20 performance of the gas distribution system. Execution of this program on an annual  
 21 basis will ensure the continuation of reliable gas service that is of adequate pressure  
 22 and capacity.

23  
 24 **Replace Deteriorated Pipe - \$800,000**

25 This annual project will replace sections of existing natural gas piping that are  
 26 suspect for failure or have deteriorated within the natural gas system. This project  
 27 will address the replacement of sections of natural gas main that no longer operate  
 28 reliably and/or safely. Sections of the natural gas system require replacement due to  
 29 many factors including material failures, environmental impact, increase leak  
 30 frequency, or coating problems. This project will identify and replace sections of  
 31 main to improve public safety and system reliability.

32  
 33 **Regulator Station Reliability Projects - \$400,000**

34 This annual project upgraded or replaced various regulator stations within the natural  
 35 gas distribution system, improving station reliability and reducing operation and  
 36 maintenance costs. Existing stations required upgrades due to many factors, such as  
 37 replacement of obsolete equipment and improvement in regulation technology.

38  
 39 **Natural Gas Replacement Street/Highways - \$2,200,000**

40 This annual project will replace sections of existing natural gas piping that require  
 41 replacement due to relocation or improvement of streets or highways in areas where  
 42 natural gas piping is installed. Avista installs many of its facilities in public right-of-

1 way under established franchise agreements. Avista is required under the franchise  
2 agreements, in most cases, to relocate its facilities when they are in conflict with road  
3 or highway improvements.  
4

5 **Cathodic Protection Projects - \$1,000,000**

6 This annual project upgraded, replaced, or installed cathodic protection systems  
7 required to ensure compliance with PHMSA regulations regarding proper cathodic  
8 protection of steel mains.  
9

10 **Gas Distribution Non-Revenue Blanket - \$4,571,000**

11 This annual project will replace sections of existing natural gas piping that require  
12 replacement to improve the operation of the natural gas system but are not linked to  
13 new revenue. The project includes improvements in equipment and/or technology to  
14 improve system operation and/or maintenance, replacement of obsolete facilities,  
15 replacement of main to improve cathodic performance, and projects to improve  
16 public safety and/or improve system reliability.  
17

18 **Isolated Steel Replacement - \$1,700,000**

19 The Company is implementing a special cathodic protection program for the purpose  
20 of finding and addressing isolated steel in its natural gas piping systems. This  
21 program is described further by Mr. Kopczynski in his testimony, Exhibit  
22 No.\_\_(DFK-1T).  
23

24 **Aldyl A Pipe Replacement - \$5,000,000**

25 The Company is proposing to undertake a twenty-year program to systematically  
26 remove and replace select portions of the DuPont Aldyl A medium density  
27 polyethylene pipe in its natural gas distribution system in the States of Washington,  
28 Oregon and Idaho. None of the subject pipe is "high pressure main pipe," but rather,  
29 consists of distribution mains at maximum operating pressures of 60 psi and pipe  
30 diameters ranging from 1¼ to 4 inches. This program is described further by Mr.  
31 Kopczynski in his testimony, Exhibit No.\_\_(DFK-1T).  
32

33 **Over Built Pipe Replacement Blanket - \$500,000**

34 This annual project will replace sections of existing gas piping that have experienced  
35 encroachment or have been overbuilt i.e., where a structure has been built over  
36 existing gas piping. It will address the replacement of sections of gas main that no  
37 longer can be operated safely and will identify and replace sections of main to  
38 improve public safety. All types of overbuilds will be addressed with the primary  
39 focus of the project being overbuilds in manufactured home developments.  
40

41 **Gas Telemetry - \$650,000**

42 The projects will include the installation of six flow computers to replace existing  
43 aging infrastructure. Additionally this project includes all new telemetry  
44 installations, to include both wireless and hard wired.

1           **Replacement 6" PE - \$1,250,000**

2           This project is an Idaho distribution project.

3  
4  
5           **Old Hwy 95 Relocation - \$3,001,000**

6           This project is an Idaho distribution project.

7  
8           **Klamath Falls Lateral - \$2,500,000**

9           This project is an Oregon distribution project.

10  
11  
12           **Q.     What are the 2013 capital projects that were included in Ms. Andrews'**  
13 **analysis in this filing?**

14           A.     Exhibit No.\_\_(DBD-4), details the system-level capital projects that will be  
15 transferred to plant in 2013. A listing and/or description of the capital projects and their  
16 system costs that will transfer to plant-in-service in 2013 follows:

17           **Generation (\$21.824 million - system):**

18  
19           The electric generation projects that will transfer to plant-in-service are described in  
20 detail in Mr. Lafferty's direct testimony, Exhibit No.\_\_(RJL-1T). A listing of these  
21 projects follows:

- 22  
23           Thermal - Colstrip - \$9,740,000  
24           Thermal - Rathdrum CT - \$917,000  
25           Hydro - Base Hydro - \$800,000  
26           Hydro - Regulating Hydro - \$1,900,000  
27           Hydro - Kettle Falls Capital Projects - \$960,000  
28           Hydro - Little Falls Powerhouse Redevelopment - \$767,000  
29           Hydro - Nine Mile Redevelopment - \$2,800,000  
30           Hydro - Clark Fork Implement PME Agreement - \$3,453,000  
31           Hydro - Spokane River Implementation (PM&E) - \$240,000  
32           Hydro - Other Small - \$247,000  
33

34           **Electric Transmission (\$33.604 million - system):**

35           The electric transmission projects that will transfer to plant-in-service are  
36 described in detail in Mr. Kinney's direct testimony, Exhibit No.\_\_(SJK-1T). A  
37 listing of these projects and system costs follows:

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**Reliability Compliance Projects**

- Spokane-CDA 115 kV Line Relay Upgrades - \$1,450,000
- SCADA Replacement - \$450,000
- System-Replace/Install Capacitor Banks - \$1,050,000
- Moscow 230 kV Substation Rebuild - \$7,619,000
- Bronx Cabinet 115 kV Substation Rebuild - \$2,500,000
- Power Transformers - Transmission - \$2,065,000
- Irvin 115kV Switching Station - \$1,150,000
- Opportunity 115kV Switching Station - \$1,550,000
- Opportunity 12F2 - \$400,000

**Contractual Required Projects**

- Lancaster 230kV Interconnection - \$3,700,000
- Colstrip Transmission - \$463,000
- Tribal Permits - \$332,000

**Reliability Improvement Projects**

- Moscow City-N Lewiston 115kV Reconductor - \$2,450,000
- Burke Thompson A&B 115kV Reconductor - \$2,500,000

**Reliability Replacement Transmission Projects**

- Transmission Minor Rebuilds - \$2,200,000
- Power Circuit Breakers - \$1,200,000
- Hatwai 230 kV Breaker Replacement - \$215,000
- Transmission Asset Management Projects - \$2,310,000

**Electric Distribution (\$53.934 million - system):**

**Washington Distribution Projects**

The Washington specific electric distribution projects totaling \$21.846 million that will transfer to plant-in-service are described in detail in Mr. Kinney’s direct testimony, Exhibit No.\_\_(SJK-1T). A listing of these projects follows:

- Wood Pole Management - \$8,133,000
- System Efficiency Feeder Rebuild - \$4,838,000
- PCB Related Distribution Rebuilds - \$2,026,000
- Feeder Automation Upgrades - \$2,501,000
- Distribution – Spokane North & West - \$500,000
- Millwood Sub Rebuild - \$3,000,000
- Power Transformer Distribution - \$350,000
- Metro feeder upgrade - \$498,000

1 **Washington Distribution Replacement Projects**

2 The Washington specific Distribution equipment replacements and minor rebuilds  
3 projects totaling \$9.438 million that will transfer to plant-in-service are described in  
4 Mr. Kinney’s direct testimony, Exhibit No.\_\_(SJK-1T). A listing of these projects  
5 follows:  
6

- 7 Electric Distribution Minor Blanket Projects - \$5,065,000
- 8 Failed Electric Plant Distribution Line Relocation - \$1,213,000
- 9 Distribution Line Relocation - \$1,397,000
- 10 Spokane Electric Network Increase Capacity - \$1,763,000

11  
12 **Washington Smart Grid Projects**

13 The Washington specific Distribution equipment Smart Grid projects totaling \$1.495  
14 million that will transfer to plant-in-service are described in Mr. Kopczynski’s direct  
15 testimony, Exhibit No.\_\_(DFK-1T). A listing of these projects follows:  
16

- 17 Pullman Smart Grid Demonstration Project - \$195,000
- 18 Smart Grid Workforce Training Project - \$1,300,000

19  
20 **Idaho Distribution Projects**

21 The following electric distribution projects are specific to the Idaho jurisdiction.  
22

- 23 Idaho Distribution and Replacement Projects - \$14,770,000
- 24 Distribution – Cda East & North - \$500,000
- 25 Distribution – Pullman & Lewis Clark - \$500,000
- 26 System Wood Substation Rebuild - \$3,705,000
- 27 N. Moscow Increase Capacity - \$1,680,000

28  
29 **General (\$22.250 million - system):**

30  
31 **Security Initiative - \$500,000**

32 Various security measures including cameras and access controls for the office and  
33 branch facilities.  
34

35 **Structures and Improvements - \$3,400,000**

36 This is a group of capital maintenance projects that Facilities Management  
37 coordinates at the Spokane Central Operating Facilities and Avista branch facilities -  
38 offices and service centers. For 2013, planned projects include: roof replacements,  
39 land acquisition for facility expansion, energy efficiency projects, security  
40 enhancement projects, asphalt overlays and replacement, construction of new storage  
41 buildings, as well as some capital repair projects in existing buildings.  
42



**Office Furniture - \$200,000**

This project is for the capital maintenance, improvements, and furniture for 50 plus Avista Offices and Service Centers (over 700,000 square feet total).

**Stores Equipment - \$450,000**

Equipment utilized in warehouses throughout the service territory. This includes equipment such as forklifts, manlifts, shelving, cutting/binding machines, etc.

**Tools, Lab & Shop Equipment - \$1,250,000**

Expenditures in this category include all large tools and instruments used throughout the Company for gas and/or electric construction and maintenance work, distribution, transmission, or generation operations, telecommunications, and some fleet equipment (hoists, winch, etc) not permanently attached to the vehicle.

**HVAC Renovation Project - \$9,500,000**

The heating, ventilating, and air conditioning systems throughout the Spokane Central Operating Facilities are approximately fifty years old and are in need of replacement. In 2007, the Company initiated a multi-year HVAC renovation project that involves replacing central air handling units and distribution systems in three buildings - the Spokane Service Center, the general office building, and the cafeteria auditorium building. The building envelope of the general office building was also renovated with high efficiency glass and insulation. The project will also achieve asbestos abatement and life safety (fire sprinkler) additions. New controls will also be installed which will enable energy conservation. Present estimates indicate cost savings of approximately \$430,000 per year in energy use, a 36% reduction in energy costs once all phases have been completed, currently planned to be completed in 2013. The 2013 project will produce approximately \$31,000 per year (system) in reduced energy costs, which have been reflected a reduction to O&M costs.

**Long Term Campus Re-Structuring Plan - \$5,000,000**

The campus restructuring plan is a 2-year, 3 phase plan to address critical parking and office space needs. Avista employees are forced to park on residential streets which sometimes disturbs our neighbors. Moreover, Avista does not meet the current city requirements for handicap and carpool parking spaces. The campus restructuring will create 109 additional parking spaces for employees inside of the Avista property. Avista is currently leasing office space for 75 employees that cannot fit into the current facility layout. In 2012, Avista will construct a \$4,500,000 - 30,000 sq. ft. contemporary warehouse to replace a warehouse that was designed to meet the needs of a 1950's utility. In 2013, Facilities will remodel the old warehouse to then accommodate 120 cubicles, meeting rooms, offices and restroom facilities. By remodeling the old warehouse, Avista will make wise use of the square footage and return employees to a central location. The budget for the warehouse renovation is \$5,000,000. The 3<sup>rd</sup> phase of the plan is to construct a 50 space parking lot on the Ross Court property adjacent to the Avista campus.

**WSDOT Highway Preservation/Maintenance of Right of Ways - \$250,000**

In order to operate our electric system within State highway rights-of-way, the Company needs to preserve/maintain right-of-ways. Existing right of ways have expired and Avista must seek new agreements with the State.

**Smart Grid Workforce Training Center - \$1,700,000**

Avista is partnering with several utilities and colleges in the region to develop a smart grid workforce training program over the next three years. As a result of this partnership Avista will be upgrading the Jack Stewart Training Center with a substation and distribution training facility for smart grid technology, updating Avista training programs for apprentices, journeymen and pre-line school students to incorporate smart grid technology; and developing several online curriculum offerings to be shared by utilities and colleges in Washington, Oregon, Idaho, Montana and Utah. This project is described further by Mr. Kopczynski in his testimony, Exhibit No. \_\_\_(DFK-1T).

**Transportation (\$6.639 million - system):****Transportation Equipment - \$6,639,000**

Expenditures are for the scheduled replacement of trucks, off-road construction equipment and trailers that meet the Company's guidelines for replacement including age, mileage, hours of use and overall condition. This also includes additions to the fleet for new positions or crews working to support the maintenance and construction of our electric and natural gas operations.

**Technology (\$21.258 million - system):****Information Technology Refresh Blanket - \$9,974,000**

A program to replace obsolete technology according to Avista's refresh cycles that are generally driven by hardware/software manufacturer and industry trends to maintain business operations.

**Information Technology Expansion Blanket - \$6,863,000**

A program to deliver technology associated with expansion of existing solutions.

**Enterprise Business Continuity - \$482,000**

Avista has developed an Enterprise Business Continuity Plan (EBCP) to facilitate emergency response and business continuity activities in fulfillment of our mission. The program supports the Enterprise Business Continuity objectives by providing a framework for emergency response, technology recovery, alternate facilities and business continuity activities. The program provides communications, escalation and operational procedures necessary for efficient response to events. Support of the Enterprise Business Continuity Plan mitigates risk and minimizes the impact on the shareholders, customers, employees, and the community during and following an

1 incident requiring activation of the EBCP. Through the development and  
2 maintenance of standardized mission critical plans and comprehensive alternate  
3 facilities planning, exercises and testing, the response, recovery and restoration  
4 efforts are synchronized, which in turn, lowers the risk of direct, indirect, tangible or  
5 intangible losses. Through on-going development, maintenance, review, and testing  
6 of the critical alternate operating procedures in support of critical business processes,  
7 process and procedure gaps are identified. This process will ensure the readiness of  
8 systems, procedures, processes, and people during emergency operations and provide  
9 an environment of constant improvement.

10  
11 **IT for Facilities Projects - \$430,000**

12 This project is for the additional technology required to support remodeling or other  
13 facility work.

14 **Next Generation Radio - \$750,000**

15 This project is refreshing Avista's 20 year old Land Mobile Radio (LMR) system that  
16 is used for critical crew communications during outage restoration and daily  
17 operations of maintaining the electric and gas distribution and transmission systems.  
18 Avista continues to maintain a private Land Mobile Radio system because the  
19 offerings available from public providers cannot provide communication throughout  
20 our rural service territory and as a portion of our nation's critical infrastructure it is  
21 imperative that Avista have a communication system that will operate in the event of  
22 a disaster to help safeguard the general public. The driver for this project is a  
23 mandate from the Federal Communications Commission (FCC). The FCC has,  
24 through Rule Making and Order no. RM-9332 release date December 23, 2004, ruled  
25 that all licensees in the Industrial/Business Radio Pool operating in the 150-174 MHz  
26 and 421-512 MHz bands migrate to spectrum efficient narrowband technology by  
27 January 1, 2013. Failure to act would result in violation of the FCC Narrow banding  
28 mandate (Rule 9332) as quoted from the order "Operation in violation of the  
29 Commission's rules may subject licensees to appropriate enforcement action,  
30 including admonishments, license revocation, and/or monetary forfeitures of up to  
31 \$16,000 for each such violation or each day of a continuing violation and up to  
32 \$112,500 for any single act or failure to act."

33  
34 **Technology Projects Minor Blanket - \$560,000**

35 This item is intended to be used for small technology projects. These projects are  
36 small items that provide for improvements in how Avista provides services to our  
37 customers. Examples of project approved under this program are adding new features  
38 and functions to the Claims system, adding an additional module to the Rate  
39 Software product, adding additional software for Apprentice Craft training and  
40 adding additional features to the Contract Management system.

1           **Microwave Replacement Project - \$1,800,000**

2           The project is designed to replace the aging and no longer supported microwave  
3           equipment with a supported technology. These systems support the communication  
4           for protection and relaying of the electrical transmission systems that allow the  
5           reliable delivery of electricity throughout our service territory.  
6

7           **DIMP Infrastructure - \$400,000**

8           This project is for adding functionality to the Gas Compliance Application to meet  
9           the mandated requirements of the Distribution Integrity Management Program  
10          (DIMP).  
11

12          **Jackson Prairie Storage (\$1.000 million - system):**

13          **Jackson Prairie Storage Project - \$1,000,000**

14          These projects include various capital improvements that Avista and its partners will  
15          complete at Jackson Prairie facility in 2013.  
16

17          **Natural Gas Distribution (\$23.202 million - system):**

18          **Gas Reinforce – Minor Blanket - \$800,000**

19          This annual project will reinforce portions of the existing gas system to ensure  
20          continued reliable service during a design day for areas that have had low pressure  
21          problems due to increased growth and/or system demand. This project will identify  
22          and install new sections of gas main to improve the operating reliability and  
23          performance of the gas distribution system. Execution of this program on an annual  
24          basis will ensure the continuation of reliable gas service that is of adequate pressure  
25          and capacity.  
26

27          **Replace Deteriorated Pipe - \$800,000**

28          This annual project will replace sections of existing natural gas piping that are  
29          suspect for failure or have deteriorated within the natural gas system. This project  
30          will address the replacement of sections of natural gas main that no longer operate  
31          reliably and/or safely. Sections of the natural gas system require replacement due to  
32          many factors including material failures, environmental impact, increase leak  
33          frequency, or coating problems. This project will identify and replace sections of  
34          main to improve public safety and system reliability.  
35

36          **Regulator Station Reliability Projects - \$400,000**

37          This annual project upgraded or replaced various regulator stations within the natural  
38          gas distribution system improving station reliability and reducing operation and  
39          maintenance costs. Existing stations required upgrade due to many factors such as  
40          replacement of obsolete equipment and improvement in regulation technology.  
41  
42

**Natural Gas Replacement Street/Highways - \$2,250,000**

This annual project will replace sections of existing natural gas piping that require replacement due to relocation or improvement of streets or highways in areas where natural gas piping is installed. Avista installs many of its facilities in public right-of-way under established franchise agreements. Avista is required under the franchise agreements, in most cases, to relocate its facilities when they are in conflict with road or highway improvements.

**Cathodic Protection Projects - \$500,000**

This annual project upgraded, replaced, or installed cathodic protection systems required to ensure compliance with PHMSA regulations regarding proper cathodic protection of steel mains.

**Gas Distribution Non-Revenue Blanket - \$4,782,000**

This annual project will replace sections of existing natural gas piping that require replacement to improve the operation of the natural gas system but are not linked to new revenue. The project includes improvements in equipment and/or technology to improve system operation and/or maintenance, replacement of obsolete facilities, replacement of main to improve cathodic performance, and projects to improve public safety and/or improve system reliability.

**Isolated Steel Replacement - \$2,818,000**

The Company is implementing a special cathodic protection program for the purpose of finding and addressing isolated steel in its natural gas piping systems. This program is described further by Mr. Kopczynski in his testimony, Exhibit No.\_\_(DFK-1T).

**Aldyl A Pipe Replacement - \$8,250,000**

The Company is proposing to undertake a twenty-year program to systematically remove and replace select portions of the DuPont Aldyl-A medium density polyethylene pipe in its natural gas distribution system in the States of Washington, Oregon and Idaho. None of the subject pipe is "high pressure main pipe," but rather, consists of distribution mains at maximum operating pressures of 60 psi and pipe diameters ranging from 1¼ to 4 inches. This program is described further by Mr. Kopczynski in his testimony, Exhibit No.\_\_(DFK-1T).

**Over Built Pipe Replacement Blanket - \$500,000**

This annual project will replace sections of existing gas piping that have experienced encroachment or have been overbuilt. It will address the replacement of sections of gas main that no longer can be operated safely and will identify and replace sections of main to improve public safety. All types of overbuilds will be addressed with the primary focus of the project being overbuilds in manufactured home developments.

**Reinforce - Chase Rd Gate Station in Post Falls, Idaho - \$2,102,000**

This project is an Idaho distribution project.

**Q. What would be the net impact to electric rate base for the 2012 and 2013 capital investment had it been included in this case?**

A. Electric net rate base for capital investment in 2012 and 2013 would increase \$60,838,000, from \$1,121,676,000 (after pro forma adjustment) to \$1,182,514,000. Table 4 below summarizes the impact of this capital investment.

**Table 4:**

(\$000's)		Planned Investment					Rate Base 2013 AMA
		2012 Activity		2013 Activity			
		Adjust 12/31/11 Vintage to 12/31/12 EOP	2012 Capital Additions to 12/31/12 EOP	Adjust 12/31/11 Vintage to 2013 AMA	2012 Capital Additions to 2013 AMA	2013 Capital Additions to 2013 AMA	
Plant	\$ 2,006,568	\$ -	\$ 130,695	\$ -	\$ -	\$ 32,088	\$ 2,169,351
A/D	(681,018)	(56,982)	(2,695)	(26,995)	(3,581)	(824)	(772,095)
DFIT	(203,874)	(5,448)	(2,114)	(826)	(1,692)	(788)	(214,742)
Rate Base	<u>\$ 1,121,676</u>	<u>\$ (62,430)</u>	<u>\$ 125,886</u>	<u>\$ (27,821)</u>	<u>\$ (5,273)</u>	<u>\$ 30,476</u>	<u>\$ 1,182,514</u>

**Q. What is the net impact to natural gas rate base for the 2012 and 2013 capital investment included in this case?**

A. Natural gas net rate base for capital investment in 2012 and 2013 would increase \$5,896,000, from \$191,617,000 (after pro forma adjustment) to \$197,513,000. Table 5 below summarizes the impact of this capital investment.

**Table 5:**

(\$000's)	Rate Base 12/31/11 EOP	Planned Investment					Rate Base 2013 AMA
		2012 Activity		2013 Activity			
		Adjust 12/31/11 Vintage to 12/31/12 EOP	2012 Capital Additions to 12/31/12 EOP	Adjust 12/31/11 Vintage to 2013 AMA	2012 Capital Additions to 2013 AMA	2013 Capital Additions to 2013 AMA	
		Plant	\$ 353,394	\$ -	\$ 18,231	\$ -	
A/D	(118,314)	(9,985)	(573)	(5,243)	(739)	(212)	(135,066)
DFIT	(43,463)	(1,962)	(456)	(539)	(345)	(188)	(46,953)
Rate Base	\$ 191,617	\$ (11,947)	\$ 17,202	\$ (5,782)	\$ (1,084)	\$ 7,507	\$ 197,513

**Q. How were the offsets determined for the 2012 and 2013 plant investment?**

A. Each capital addition was analyzed to determine any offsets (e.g. reduced O&M costs, reduced load losses, etc.). Maintenance records were reviewed to determine whether any specific maintenance costs were incurred in the test period that would be reduced or eliminated by the investment at the facility. For transmission projects, analyses were conducted to determine the amount of potential load loss savings that would be achieved. Those costs were quantified and included as a reduction to O&M costs in the O&M Savings pro forma adjustment included by Ms. Andrews in the revenue requirement.

In addition, the output from generation assets is included in the Aurora power cost model. Therefore, to the extent that the additional investments serve to either preserve or increase generation from the generation projects, the benefits are already reflected in the Aurora model.

1           **Q.     What is the rationale behind the removal of capital expenditures for**  
2 **connecting new customers?**

3           A.     The capital expenditures for 2012 and 2013 exclude distribution-related  
4 capital expenditures made that are associated with connecting new customers to the  
5 Company's system. The Company recognizes the fact that new customers provide  
6 incremental revenue that helps offset the revenue requirements of the distribution-related  
7 capital additions that the Company incurs to provide service to those customers.

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**IV. DEPRECIATION STUDY**

10           **Q.     Why did Avista have a depreciation study performed?**

11           A.     Avista hired Gannett Fleming, Inc., to undertake a depreciation study of its  
12 depreciable electric, gas and common plant in service as of December 31, 2010. The  
13 Summary of the study is included as Exhibit No. \_\_\_\_ (DBD-6). (Additional support is  
14 included in my workpapers (see Part 2 of 2 DeFelice Workpapers).) The objective of this  
15 assignment was to recommend depreciation rates to be utilized by Avista for accounting and  
16 ratemaking purposes. Also, it is sound accounting practice to periodically update  
17 depreciation rates to recognize additions to investment in plant assets and to reflect changes  
18 in asset characteristics, technology, salvage, removal costs, life span estimates and other  
19 factors that impact depreciation rate calculations. The Company last changed its  
20 depreciation rates in Washington effective January 1, 2008, in accordance with Order No. 05  
21 dated December 19, 2007, issued in Docket Nos. UE-070804 and UG-070805. The  
22 depreciation rates approved by the Commission were developed from a study based on



1 depreciable plant balances at December 31, 2006. The Company typically conducts  
2 depreciation studies at approximately five-year intervals. For the current study, Avista hired  
3 Gannett Fleming, Inc. to undertake a depreciation study of its depreciable electric, natural  
4 gas and general plant in service as of December 31, 2010<sup>5</sup>.

5 **Q. What is the main purpose of a depreciation study?**

6 A. The objective of the study was to arrive at depreciation rates to be utilized by  
7 Avista for accounting and ratemaking purposes. The annual accrual rates proposed in this  
8 filing were calculated in accordance with the straight-line remaining life method of  
9 depreciation, using the average service life procedures based on estimates which reflect  
10 considerations of historical evidence and expected future conditions.

11 **Q. Why is depreciation especially important to a utility?**

12 A. An electric and natural gas utility is very capital intensive; that is, it requires a  
13 tremendous investment in generation, transmission and distribution equipment, with long  
14 lives, in order to provide service to customers. Thus, the annual depreciation of this  
15 equipment is a major item of expense to the utility. Regulated prices are expected to allow  
16 the utility to fully recover its operating costs, earn a fair return on its investment and  
17 equitably distribute the cost of the assets to the customers who are receiving service from  
18 these facilities. If depreciation rates are established at an unreasonable low or high level for  
19 ratemaking purposes, the utility will either over or under recover its operating costs in the

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<sup>5</sup> The study was prepared by Gannett Fleming, Inc. in 2011, using the plant balances at December 31, 2010. The Company used the depreciation rates from that study and applied them to the plant balances at December 31, 2011 to compute the depreciation study adjustment included by Ms. Andrews in her revenue requirement computation.

1 appropriate period, which will shift either costs or benefits from current customers to future  
2 customers.

3 **Q. Please explain the concept of depreciation.**

4 A. There are several definitions of depreciation. The following definition is  
5 referenced from the American Institute of Certified Public Accountants<sup>6</sup>:

6 *Depreciation accounting is a system of accounting which aims*  
7 *to distribute the cost or other basic value of tangible capital*  
8 *assets, less salvage (if any), over the estimated useful life of*  
9 *the unit (which may be a group of assets) in a systematic and*  
10 *rational manner. It is a process of allocation, not of*  
11 *valuation. Depreciation for the year is the portion of the total*  
12 *charge under such a system that is allocated to the year.*  
13 *Although the allocation may properly take into account*  
14 *occurrences during the year, it is not intended to be a*  
15 *measurement of the effect of all such occurrences.*

16  
17 The actual payment for utility plant assets occurs in the period in which it is acquired  
18 through purchase or construction. Depreciation accounting spreads this cost over the useful  
19 life of the property. The fundamental reason for recording depreciation is to provide for  
20 accurate measurement of a utility's results of operations. Capital investments in the  
21 buildings, plant, and equipment necessary to provide natural gas and electric service are  
22 essentially a prepaid expense, and annual depreciation is the part of those expenses  
23 applicable to each successive accounting period over the service life of the property. Annual  
24 depreciation is an important and essential factor in informing investors and others of a  
25 company's periodic income. If it is omitted or distorted, a company's periodic income  
26 statement is distorted and would not meet required accounting and reporting standards.

27 **Q. What other key terms are used in the depreciation study?**

1           A.     These definitions are as follows:

- 2     •     Service Value – The difference between original cost and net salvage of utility plant.
- 3     •     Net Salvage – The salvage value of property retired less the cost of removal.
- 4     •     Salvage Value – The amount received for property that has been retired, less any cost  
5     incurred in connection with the sale or in preparing the property for sale; or, if retained,  
6     the amount at which the material recoverable is chargeable to materials and supplies  
7     (inventory), or other appropriate account.
- 8     •     Cost of Removal – The cost of demolishing, dismantling, tearing down or otherwise  
9     removing utility plant, including the cost of transportation and handling incidental  
10    thereto.
- 11    •     Service Life – The time between the date utility plant is includible in utility plant in  
12    service and the date of its retirement.

13     **STUDY RESULTS AND DETAILS**

14           **Q.     Please summarize the phases and methods used in the depreciation**  
15 **study?**

16           A.     The study consisted of the following phases:

17           Phase One estimates the service life and net salvage characteristics for each  
18     depreciable group. This was done by compiling historical plant data and analyzing it to  
19     determine historical trends of survivor and net salvage characteristics. This phase also  
20     involves obtaining additional information from the Company’s personnel relating to

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<sup>6</sup> American Institute of Certified Public Accountants by the Committee on Terminology, “Accounting Terminology Bulletin,” *Review and Resume Number 1*(1953).

1 operations of the plant and making judgments of average service life and net salvage  
 2 characteristics.

3 Phase Two calculates the composite remaining lives and annual depreciation accrual  
 4 rates. This phase was done by using the straight-line remaining life method, using remaining  
 5 lives weighted consistent with the average service life procedure.

6 **Q. What were the changes in electric depreciation rates that were**  
 7 **recommended as a result of the study?**

8 A. Following is a table that shows the system existing rates and the  
 9 recommended rates:

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<u>Functional Electric Group</u>	<u>Depreciation Rates</u>	
	<u>Existing %</u>	<u>Recommended %</u>
Steam Production Plant	2.74	1.93
Hydraulic Production Plant	2.14	1.83
Other Production Plant	3.01	3.20
Transmission Plant	2.05	1.82
Distribution Plant	2.71	2.91
General Plant	5.86	3.01

21

22

**Q. What does that represent in terms of a percentage change in  
 depreciation expense?**

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A. By utilizing the new rates recommended in the study and applying them to  
 system electric plant end of period balances for the twelve-months-ended December 31,  
 2011, depreciation expense decreased by approximately 6.3%.

26

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**Q. Would you summarize the findings and recommendations of the  
 depreciation study using the functional groups listed above?**

1           A.     Yes. The composite rate for electric property under the study changed from  
2 2.61% to 2.45%. As a group, average service life changes were mostly increases. Net  
3 salvage changes were more negative due to decreased salvage and flat cost of removal. The  
4 relationship of increased expected service life and less salvage is expected since the residual  
5 value of an asset decreases with time and the fact that cost of removal is related to labor  
6 costs inflating over time, resulting in net salvage decreases over time.

7           Washington electric depreciation expense decreased \$2,990,929, primarily due to  
8 decreased expense of \$2,555,279 for generation plant and decreased expense of \$762,488 for  
9 transmission plant. Distribution plant and general plant had small increases in expense. For  
10 generation plant, Steam Production Plant depreciation expense decreased due to minor  
11 changes in net salvage and estimated service lives, resulting in an increase in the remaining  
12 service life. Hydraulic Production Plant expense decreased primarily due to the Noxon  
13 Rapids facility, which saw increased levels of negative net salvage offset by increased  
14 expected service lives. Other Production Plant expense increased primarily due to the  
15 Coyote Springs facility, which saw a decrease in service lives, as well as, an increase in  
16 negative net salvage. Transmission Plant Expense decreased due to increased service lives.  
17 Details of the average service life and net salvage by FERC account number are listed in  
18 Exhibit No. \_\_\_\_(DBD-5).

19           **Q.     What were the changes in natural gas depreciation rates that were**  
20 **recommended as a result of the study?**

21           A.     Following is a table that shows the system existing rates and the  
22 recommended rates:

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	<b><u>Depreciation Rates</u></b>	
	<b><u>Existing %</u></b>	<b><u>Recommended %</u></b>
<b><u>Functional Gas Group</u></b>		
Underground Storage Plant	1.83	1.49
Distribution Plant	2.35	2.48
General Plant	5.01	3.69

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8       **Q.    What does that represent in terms of a percentage change in**  
9 **depreciation expense?**

10       A.    By utilizing the new rates recommended in the study and applying them to  
11 system natural gas plant end-of-period balances for the twelve months ended December 31,  
12 2011, depreciation expense increased by approximately 3.2%.

13       **Q.    Would you summarize the findings and recommendations of the**  
14 **depreciation study for natural gas plant?**

15       A.    Yes. The composite rate for natural gas property under the study changed  
16 from 2.35% to 2.43%. As a group, average service life changes were mostly increases. Net  
17 salvage changes were mostly decreases due to increased levels of cost of removal.  
18 Washington natural gas depreciation expense increased \$502,194, primarily due to increased  
19 expense of \$344,667 for distribution plant and increased expense of \$235,929 for general  
20 plant.

21       **Q.    Is the Company proposing to change the depreciation methodology for**  
22 **any of its assets categories?**

23       A.    Yes. The Company is proposing to switch the depreciation method  
24 applicable to specific classes of transportation equipment from mileage-based depreciation  
25 rates to straight-line depreciation rates. The Company is proposing to do this for several

1 reasons. The prior depreciation studies and depreciation rate modifications have not included  
2 changes to the mileage-based depreciation rates applicable to certain transportation  
3 equipment. It has been many years since the depreciation rates for certain transportation  
4 assets have been studied and they need to be updated. According to the depreciation  
5 consultant, straight-line depreciation for transportation equipment is the standard method  
6 being used by other utilities. Moreover, Avista is contracting to purchase a new computer  
7 software system to calculate depreciation, and the new software is not designed to use  
8 mileage-based depreciation rates. Modifying the software to accommodate mileage-based  
9 depreciation rates will increase internal costs and inefficiencies.

10 The straight-line depreciation rates that the Company proposes to implement when  
11 approved by the state commissions were recently provided by the depreciation study  
12 consultant in the Depreciation Study, which was after the Company finalized the revenue  
13 requirement computation. Any proposed change in transportation depreciation expense  
14 resulting from the straight-line rates will be reflected in an update to this case.

15 **Q. Is it important to maintain uniform depreciation rates on common plant**  
16 **by the Company's three jurisdictions?**

17 A. Yes. Avista is making a similar depreciation filing with the Idaho Public  
18 Utilities Commission and the Public Utility Commission of Oregon. It is important that the  
19 Company maintain uniform plant accounts and depreciation rates on common plant that gets  
20 allocated to the various services and jurisdictions in which the Company operates. In the  
21 event different depreciation rates or methods were to be ordered, it would result in multiple  
22 sets of depreciation accounts and records that would need to be adjusted annually for

1 changes in allocation factors, which would impose a costly administrative burden on the  
2 Company and unnecessary expense for the Company's ratepayers.

3 **Q. What is the impact of the proposed changes in depreciation rates?**

4 **A.** The Pro Forma Depreciation Adjustment reflects a decrease in electric  
5 depreciation expense due to the utilization of new depreciation rates that were the result of  
6 the detailed depreciation study performed by Gannett Fleming, Inc., explained earlier. The  
7 effect of this adjustment is to decrease Washington electric operating income before federal  
8 income tax by \$2,990,929. The same adjustment for natural gas operations is to increase  
9 Washington operating income before federal income tax by \$502,194. These amounts are  
10 calculated on of Exhibit No. \_\_\_\_ (DBD-5) (Depreciation Study – EOP Adjustment Summary).

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

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