BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-14\_\_\_\_\_\_\_\_

DOCKET NO. UG-14\_\_\_\_\_\_\_\_

DIRECT TESTIMONY OF

DAVE B. DEFELICE

REPRESENTING AVISTA CORPORATION

##### I. INTRODUCTION

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

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

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

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

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

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

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

A. My testimony and exhibits in this proceeding will cover the Company’s capital investments in utility plant through December 31, 2015. The information included in my testimony, with the exception of the June 30, 2013 restating adjustment as described below, is included for informational purposes. As explained by Company witness Ms. Andrews, the Company is basing its electric and natural gas revenue increase requested in this case on its electric and natural gas Attrition Studies. However, as a “cross check” to the Company’s request, Ms. Andrews has also prepared electric and natural gas Pro Forma Cross Check Studies, which incorporate Washington’s share of the Pro Forma or 2015 rate year adjustments for expenses and capital additions described further in my testimony.

In addition, for informational purposes only, I provide information on capital investment through 2016 as an indication of the ongoing capital investments by the Company. I also summarize the effect of the recently authorized depreciation rates, approved by the Washington Utilities and Transportation Commission in Dockets UE-120436 and UG-120437, Order No. 09.

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

A. Yes. I am sponsoring Exhibit Nos. \_\_(DBD-2) through (DBD-5) which were prepared under my direction, and have been included to provide supporting information for the capital investment as described in this testimony.

##### II. CAPITAL ADDITIONS THROUGH JUNE 2013

**Q. What does the Company's request for rate relief include regarding investment in utility plant that was in service at June 30, 2013?**

A. As in prior rate cases, Avista started with rate base for the historical test year, which, for this case, is the average-of-monthly-averages (“AMA”) for the twelve months ended June 30, 2013. A restating adjustment, made by Ms. Andrews in Exhibit Nos.\_\_(EMA-4) and (EMA-5), was made to restate plant-in-service at June 30, 2013, together with the associated accumulated depreciation (“A/D”) and deferred federal income taxes (“DFIT”) at a June 30, 2013 end-of-period (“EOP”) basis[[1]](#footnote-1). This adjustment includes annualizing the associated depreciation expense on the plant-in-service at June 30, 2013.

**Q. What is the net impact to electric rate base for the twelve months ended June 30, 2013, to restate capital to an end-of-period basis?**

A. Electric net rate base for capital investment as of year-end June 30, 2013 increased $35,200,000, from $1,157,292,000 on an AMA basis to $1,192,492,000 on an EOP basis. Table No. 1 below summarizes the adjustment and also reflects the change in the Company’s depreciation rates approved in our last rate case, which I will explain later.

**Table No. 1:**

**Q. What was the net impact to natural gas rate base for the twelve months ended June 30, 2013 to restate capital to an end-of-period basis?**

A. Natural gas net rate base for capital investment as of year-end June 30, 2013, increased $4,955,000, from $197,693,000 on an AMA basis to $202,648,000 on an EOP basis. Table No. 2 below summarizes the adjustment included in the case.

 **Table No. 2:**

**Q. Please summarize the effect of the most recently approved change in depreciation rates.**

A. The Company was authorized to change its depreciation rates effective January1, 2013, by the Washington Commission in Order No. 09, dated December 26, 2012 (Dockets Nos. UE-120436 and UG-120437).

Depreciation expense and the associated accumulated depreciation for Washington electric and natural gas plant increased by $1,163,054 and $1,040,519, respectively, when adjusted to reflect the change in depreciation rates for all plant in service for the full twelve months of the test period. This includes $476,444 electric and $180,448 natural gas, on transportation vehicles, and $686,610 electric and $860,071 natural gas, on all remaining Washington plant. These amounts are reflected in the Restate Capital Adjustment (2.19-Electric and 2.15-Natural Gas) in Company witness Ms. Andrews’ workpapers and exhibits as well as in my workpapers.

##### III. CAPITAL ADDITIONS JULY 2013 THROUGH DECEMBER 2015

**Q. What is the purpose of preparing the information with respect to the July through December 2013, 2014, and 2015 capital additions?**

A. The Attrition Adjustment sponsored by Company witness Mrs. Andrews is used in deriving the revenue requirement, and through a trending analysis, captures additional capital expenditures up to and including the 2015 rate year. The Company’s revenue increase proposal in this case is based on this Attrition Adjustment.

However, as Ms. Andrews explains in her testimony, Avista has provided additional analysis as a “Cross Check” to the proposed electric and natural gas revenue increase requests. We have referred to the Cross Check analysis as a Pro Forma Cross Check Study. The Pro forma Cross Check Studies are provided for informational purposes only as support or confirmation of the Company’s need for rate relief. Avista’s revenue increase request is based on the Attrition Studies, not the Pro Forma Cross Check Studies.

**Q. How are the July through December 2013, 2014, and 2015 capital additions reflected in the Pro Forma Cross Check Studies?**

A. For July through December 2013, Ms. Andrews included all six months of capital[[2]](#footnote-2), together with the associated AD and ADFIT at a December 31, 2013 EOP basis. This included associated depreciation expense for the capital additions. These specific capital additions are identified later in my testimony. In addition, the plant-in-service at June 30, 2013 was adjusted to a December 31, 2013 EOP basis.

Ms. Andrews also reflected all 2014 capital additions[[3]](#footnote-3), together with the associated AD and ADFIT at a 2014 EOP basis. This included associated depreciation expense for the

capital additions. These specific capital additions are identified later in my testimony. In addition, the plant-in-service at December 31, 2013 was adjusted to a 2014 EOP basis.

Finally, she included all 2015 capital additions[[4]](#footnote-4), together with the associated AD and ADFIT at a 2015 AMA basis. This included associated depreciation expense for the capital additions. These specific capital additions are identified later in my testimony. In addition, the plant-in-service at December 31, 2014 was adjusted to a 2015 AMA basis. Tables depicting the electric and natural gas Pro Forma Cross Check Study adjustments for July 2013 through 2015 are shown later in my testimony at Tables 11 and 12.

**IV. CAPITAL BUDGET AND REVIEW**

**Q. Please describe the capital budgeting process.**

A. Avista has revised the capital budgeting process over the last several years. The new process allows for further and more detailed review of capital projects and progress by using business cases. A business case is a summary document that provides support and analysis for a project or program. Components of a business case include: the project description, project alternatives, cost summary, business risk, financial assessment, strategic assessment, justification for the project (mandatory, resource requirements, etc), milestones, key performance indicators, etc. Business cases, along with a cover sheet for the projects included in this case, have been provided as additional support in Exhibit No. \_\_\_(DBD-5).

The budget process starts with project sponsors submitting new and updated business cases to the Financial Planning and Analysis (“FP&A”) group for the upcoming five year period. The business cases are reviewed by FP&A and then included in the list of valid projects and programs to be considered for funding by the Capital Planning Group (“CPG”). The CPG is currently a group of several Directors that represent all capital intensive areas of the Company. The CPG meets to review the submitted Business Cases and prioritize funding to meet the capital budget targets set by senior management. After approval from senior management, the capital budget is sent to the Board of Directors to approve the capital budget amount for the five year period. The CPG meets monthly to review the status of the projects and programs written in the business cases, and approve or decline new business cases as well as monitor the overall capital budget.

**Q. Is the Company confident that the capital additions that are presented in this case will actually occur for the period July 2013 through December 31, 2015?**

A. Yes. The July through December 2013 projects are completed and many of the 2014 projects are already underway or completed either through actual construction, contracts signed, and/or materials ordered. In addition, the actual and planned capital expenditures for the utility for the years 2006 through 2013 are shown in Table No. 3 below. The table shows that actual capital expenditures have been very close to the planned expenditures on a consistent basis. In fact, the eight year average of actual expenditures is 100% of the planned expenditures. I believe it is fair to conclude that there is a high level of confidence that the planned capital expenditures for July 2013 through 2015 will occur.

**Table No. 3:**

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

A.Avista’s annual capital requirements have steadily increased from approximately $158 million in 2006 to approximately $296 million in 2013. Capital expenditures of approximately $686 million are planned for 2014-2015 for customer growth, investment in generation upgrades and transmission and distribution facilities, as well as necessary maintenance and replacements of our natural gas utility systems. Capital expenditures of approximately $1.7 billion are planned for the five-year period ending December 31, 2018. Exhibit No. \_\_\_(DBD-2) reflects this trend that Avista has experienced and what is planned for in the near future.

**Q. How does new investment in utility plant change rate base over time?**

A. Avista’s investment in utility plant continues to significantly exceed depreciation expense. Because of this, rate base in the rate year is significantly greater than the historical test period AMA rate base. This is shown in Illustration No.1 below.

**Illustration No. 1:**

\*Net Plant is after accumulated depreciation is removed.

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

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

A significant factor in the growth in net plant investment or rate base is the cost of new utility equipment and facilities today, as compared to the cost of the older facilities that are now being replaced.

Some of the facilities we are replacing or upgrading were installed 40-60 years ago or even before that time. The cost to replace this equipment and facilities today is multiple times more expensive than when they were installed decades ago.

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

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

**Illustration No. 2:**

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

**Q. With respect to Avista’s July 2013 through December 2015 capital additions, would there be some operation and maintenance (O&M) savings associated with the replacement of some of the aging equipment with new equipment?**

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

Therefore, it is imperative that we continue every year to reinvest and upgrade a portion of our utility system, in addition to the investments needed to meet mandatory reliability requirements, so that our system will continue to provide reliable service. On a net basis, we will continue to experience O&M costs to maintain a system that continues to age.

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 summary of the July 2013 through December 2015 capital projects.**

A. Exhibit No.\_\_(DBD-4), details the system-level capital projects that will be transferred to plant from July 2013 through December 2015. A listing and/or description of the capital projects and their system costs that will transfer to plant-in-service for this time period follows:

**Generation:**

The electric generation projects 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 on a system basis are included in Table No. 4 below.

**Table No. 4:**

**Electric Transmission:**

The electric transmission projects that will transfer to plant-in-service are described in detail in Ms. Rosentrater’s direct testimony, Exhibit No.\_\_(HLR-1T). A listing of these projects and system costs are included in Table No. 5 below.

**Table No. 5:**

**Electric Distribution:**

The electric distribution projects that will transfer to plant-in-service are described in detail in Ms. Rosentrater’s direct testimony, Exhibit No.\_\_(HLR-1T). A listing of these projects and system costs are included in Table No. 6 below.

**Table No. 6:**

**General:**

The detailed listing of the general plant projects and system costs that will transfer to plant-in-service are included in Table No. 7 below, with narrative summaries following the table.

**Table No. 7:**

**Capital Tools & Stores Equipment - 2013: $404,000; 2014: $1,937,000; 2015: $2,348,000**

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

**Central Office Facility (COF) Long Term Campus Restructuring Plan - 2013: $8,461,000; 2014: $2,000,000; 2015: $1,500,000**

The central office facility (COF) campus restructuring plan is a 2-year, 3 phase plan to address 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 2013, Facilities remodeled the old warehouse to then accommodate 120 cubicles, meeting rooms, offices and restroom facilities. By remodeling the old warehouse, Avista made wise use of the square footage and return employees to a central location. The 3rd phase of the plan is to construct a 50 space parking lot on the Ross Court property adjacent to the Avista campus. O&M savings will result from eliminating the need for leased facilities used for personnel that will be relocated to the Mission Campus. In addition, savings are gained due to line trucks and employees not having to travel and off-load waste matter that is recyclable or hazardous. Savings are $20,000 in 2014 and $20,000 in 2015 on a system level. The allocation to Washington is 79.22% for Electric and 20.78% for Gas making the Washington allocated savings $15,844 Electric and $4,156 Gas in each year. This has been included in the O&M Offsets adjustment as shown in Company witness Mrs. Andrews’ workpapers.

**Dollar Road Service Center Addition & Remodel - 2013: $213,000**

In 2012 and 2013, Avista constructed a 12,900 sq. ft. 6-bay fleet facility. The facility enables Avista to service CNG vehicles and gas department vehicles on-site. The service of the gas vehicles was taking place at a leased facility several miles north of the Dollar Rd. property. The Dollar Rd. expansion includes a CNG filling station for the Avista fleet and CNG customers. The justification of the fleet facility was found in efficiencies gained by having mechanics on-site to maintain Avista vehicles.

**Structures and Improvements/Furniture - 2013: $2,025,000; 2014: $3,353,000; 2015: $3,600,000**

This program is for the Capital Maintenance, Improvements, and Furniture budgets at 50 plus Avista offices and service centers (over 700,000 square feet in total). Many of the included service centers were built in the 1950's and 1960's and are starting to show signs of severe aging. The program includes capital projects in all construction disciplines (Roofing, Asphalt, Electrical, Plumbing, HVAC, Energy efficiency projects etc.).

**Clinic Expansion Project - 2013: $150,000**

Capital equipment costs for the new Clinic that was completed in 4th Quarter 2013. Costs include all furniture, specialized equipment, oxygen systems, exam tables etc. for a two-room examination Facility. Project shows the possibility of significant savings to the company through bringing many of the third party health costs back in house. The clinic supports many required programs for WISHA, OSHA and DOT for requirements related to occupational health services such as audiogram testing, DOT Physicals, Drug/alcohol screens and testing, and other programs. By bringing these services in-house cost savings will be achieved by delivering these services more cost-effectively than using outside medical providers. Avista is self-insured for employee medical plans and the worker’s compensation program. Productivity is favorably impacted as a result of having a clinic on site for employees by decreasing lost time away from work and offering other medical services. The clinic can offer services comparable to an urgent care clinic at comparable or lower cost for services such as Lab/blood draws, vaccinations, allergy injections, would care, blood-pressure checks and urgent care needs. Management of worker compensation claims for injured workers will benefit through early intervention and improved coordination of claim management through the services offered in the clinic, which helps the employee and controls expenses. The clinic is HIPPA compliant and is under the same regulations as comparable medical providers.

**Apprentice Training – 2013: $10,000; 2014: $60,000; 2015: $60,000**

This program is for on-going capital improvements to support the essential skills needed for journeyman workers, apprentices and pre-apprentices now and for the future. It is important to provide the types of training scenarios that employees face in the field. Capital expenditures under this program include items such as building new facilities or expanding existing facilities, purchase of equipment needed, or build out of realistic utility field infrastructure used to train employees. Examples include: new or expanded shops, truck canopies, classrooms, backhoes and other equipment, build out of “Safe City” located at the Company’s Jack Stewart training facility in Spokane, which could include commercial and residential building replicas, and distribution, transmission, smart grid, metering, gas and substation infrastructure.

**HVAC Renovation Project - $2013: $6,507,000; 2014: $2,000,000; 2015: $8,000,000**

The HVAC Renovation Project began in 2007 and 2008. The HVAC Project is a systematic replacement of the original 1956 Heating, Ventilation and Air Conditioning System for the Service Building, Cafeteria/ Auditorium and General Office Building. The original HVAC equipment has been operating 24/7 since original construction in 1956. The Project entails a floor by floor evacuation and relocation of employees and a complete demolition of each floor; including a massive Asbestos Abatement component, and removing the original fire proofing on the basic steel structure. The Project requires exhaustive demolition and reconstruction of each floor. Sustainable energy savings and conservation are built into the Project as we apply for LEED certification for each floor. The 5th, 4th, and 3rd floor has obtained LEED-CI Gold status recognizing all of the renewable strategies we employed during the design and construction phases. The goal of this project is to re-purpose and recycle the entire Facility for the next generation of Avista employees to use for 50 more years. Life cycle costs weighed heavily on our Construction Specifications and equipment choices during the design phase. The design team chose energy efficient equipment that was designed for 30 to 50 year life cycles. After revenue requirement was finalized, it was determined that offsets exist for this business case. The project will produce approximately $36,000 (system) in reduced energy costs for 2013 and 2014. For 2013, this would include six months of the savings or $18,000. Washington’s allocation of this is $14,000 for Electric and $4,000 for gas. In 2014, offsets were $36,000 ($29,000 WA Electric $7,000 WA Gas). The O&M savings for 2015 are estimated to be $112,590 and are planned to be in-service September 2015. As such, the offset amount is $28,148 ($22,000 WA Electric and $6,000 WA Gas).

**Microwave Refresh - $2013: $3,171,000; 2014: $1,625,000; 2015: $1,073,000**

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

**Mechanical Shop 3 Ton Crane - 2014: $154,000**

Replace 480v exposed buss shop crane with freestanding 3 ton unit. Present crane is an electrocution hazard, and cannot handle many jobs due to its limited size. Limitations force us to outsource work that could be done at little or no incremental cost by our own employees. The crane is also outmoded, with limited parts availability. An estimated O&M offset of $20,000 system (13,000 WA) is gained in 2014 by eliminating the need to outsource to external contractors.

**Transmission Outage Management - 2014: $300,000**

System Operations proposes installation of a Transmission Outage Management system that would provide additional transmission outage management functionality, streamline current transmission outage management processes, and eliminate the current homegrown logging application. Implementing this system would automate many processes that are performed in a manual fashion and would bring Avista's capabilities up to industry standards. Maintenance of the logging portion of the application would change from programming the application (current) to configuring the application. Mining of data for calculating compliance reports and reliability indicators would be reduced with normalized data and automated processes.

**New Deer Park Service Center- 2015: $2,500,000**

Replace existing Deer Park Service Center. Current building is over 40 years old, and existing storage yard is becoming too small for ever-growing inventory.Environmental concerns with existing site located near railroad tracks, and close proximity to city water well. The existing building is tight for current line truck sizes, warehouse is undersized, and has code compliance and security issues. Deer Park is one of our lower-performing service centers on the Facilities Building Survey Report. No O&M offsets are presented on the attached copy of the Business Case, however after further discussion it was determined that $16,000 of annual savings would occur after the in-service date of September 2015. This amount has been prorated to include only 3 of those months. Savings are from facilities energy and maintenance savings including employee efficiencies due to larger facilities and more spacious storage yard. The total O&M offset is calculated as $16,000 x (3/12) = $4,000. Washington’s portion of this is $3,169 Electric and $831 Gas. This has been included in the O&M Offsets adjustment as shown in Company witness Mrs. Andrews’ workpapers.

**Central Office Facility (COF) Long-Term Restructure Ph2- 2015: $2,500,000**

Central Office Facility (COF) Long Term Restructuring Plan, Phase 2 involves the construction of a new Fleet Vehicle Garage and 4-story parking structure. By the end of 2015, Facilities projects will add approx. 183 new cubicles. Our parking lots will be beyond max capacity. The Fleet Garage is over 50 yrs old and is constrained. New garage will allow for maintenance of Compressed Natural Gas vehicles as the current bldg does not allow for this. Once Fleet is relocated there will be a distinct separation between operational/service vehicles and employee vehicle. This separation will increase safety by eliminating intermingling of pedestrians in work areas. Office building & parking garage is projected to allow Call Center and any leased facilities to come back to Mission campus. Ross Park conversion to office will secure any future employee expansion that will occur. It was determined that O&M savings of $33,000 will occur in July 2015. These O&M savings are the result of eliminating the need of leased facilities used for personnel that will be relocated to the Mission Campus. In addition, we would not need to rent or purchase addition space for parking. These annual savings have been prorated to include savings after the in-service date. The resulting offset is calculated as $33,000 x (5/12) = $13,860. Washington’s apportionment of this amount is $10,980 Electric and $2,880 Gas. This has been included in the O&M Offsets adjustment as shown in Company witness Mrs. Andrews’ workpapers.

**Transportation:**

The detailed listing of the transportation projects and the system costs that will transfer to plant-in-service are included in Table No. 8 below, with narrative summaries following the table.

**Table No. 8:**

**CNG Fleet Conversion - 2013: $932,000; 2014: $200,000; 2015: $200,000**

This project is to convert 119 light duty trucks to CNG over the next seven years. If more vehicles are acquired in the fleet, there is a potential for more CNG to be served from these refueling stations. Vehicle conversion will began in 2012 and will continue on 15-20 vehicles per year for the foreseeable future.

**Fleet Budget - 2013: $4,287,000; 2014: $5,586,000; 2015: $6,500,000**

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.

**Enterprise Technology:**

The enterprise technology projects that will transfer to plant-in-service are described in detail in Mr. Kensok’s direct testimony, Exhibit No.\_\_(JMK-1T). A listing of these projects and the system costs are included in Table No. 9 below:

**Table No. 9:**

**Jackson Prairie Storage - 2013: $450,000; 2014: $500,000; 2015: $1,000,000**

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

**Natural Gas Distribution:**

The detailed listing of the natural gas distribution projects and system costs that will transfer to plant-in-service, are included in Table 10, with narrative summaries following the table.

**Table No. 10:**

**Aldyl A Replacement – 2013: $8,463,000; 2014: $16,452; 2015: $16,817**

The Company currently undergoing 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).

**Cathodic Protection – 2013: $172,000; 2014: $800,000; 2015: $800,000**

This annual project upgrades, replaces, or installs cathodic protection systems required to ensure compliance with PHMSA regulations regarding proper cathodic protection of steel mains.

**Gas Distribution Non-Revenue Blanket -2013: $4,728,000; 2014: $7,402,000; 2015: $8,925,000**

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.

**Gas Reinforcement – Minor Blanket - 2013: $395,000; 2014: $1,000,000; 2015: $1,000,000**

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

**Gas Replacement Street/Highways - 2013: $1,938,000; 2014: $4,500,000; 2015: $4,500,000**

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.

**Gas Telemetry - 2013: $98,000; 2014: $400,000; 2015: $400,000**

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

**Isolated Steel Replacement - 2013: $1,121,000; 2014: $2,598,000; 2015: $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.

**Over Built Pipe Replacement Blanket - 2013: $390,000; 2014: $900,000; 2015: $900,000**

This annual project will replace sections of existing gas piping that have experienced encroachment or have been overbuilt i.e., where a structure has been built over existing gas piping. 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.

**Regulator Station Reliability Replacement Projects - 2013: $218,000; 2014: $600,000; 2015: $800,000**

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

**Replace Deteriorating Steel Gas Systems - 2013: $495,000; 2014: $800,000; 2015: $1,000,000**

This annual program will replace sections of existing steel gas piping that are suspect for failure or are showing signs of deterioration within the gas system. This program will address the replacement of sections of gas main with corrosion related issues that no longer operate reliably and/or safely. Sections of the gas system require replacement due to many factors including material failures, environmental impact, increased leak frequency, or coating problems. This program will identify and replace sections of steel pipe to improve public safety and system reliability. The projects’ primary focus is to address corrosion related pipe issues.

**Gas PMC Program-Capital Replacements - 2014: $1,000,000; 2015: $1,030,000**

This annual program will provide for replacement of gas meters and associated measurement equipment that are completed in association with the Gas Planned Meter Change-out (PMC) program. Avista is required by commission rules and an approved Tariff in WA, ID, and OR to test meters for accuracy and ensure proper metering performance. Execution of this program on an annual basis will ensure the continuation of reliable gas measurement. This program will include the labor and minor materials associated with the PMC program.

**ERTs Replacement Program - 2015: $902,000**

This program covers labor required for the replacement of 19,500 gas Encoder Receiver Transmitter (ERTs) annually for a 12-year cycle, beginning in the year 2015. Analyses has identified that a levelized replacement strategy will minimize the effect of unit failures as well as introduce new, levelized populations of ERTs into the system for future predictive maintenance. Large populations of ERTs are predicted to fail in quantities of over 20,000 units per year at the peak, causing an operations burden of personnel and equipment as well as an unreasonable number of estimated bills (currently Avista experiences just a couple hundred failures annually due to small ERT populations).

**Goldendale HP - 2015: $3,500,000**

The coating on the existing high pressure (HP) main that feeds the town of Goldendale is disbanded and is showing signs of early stages of corrosion. This line has been exposed in several different locations, and all sections have similar characteristics. Avista will replace nearly 3 miles of 4" HP feeding the town of Goldendale with new 4" steel main. Federal code mandates that the coating on steel mains must be properly adhered to the main to protect the pipe from corrosion.

**Reinforcement, Hwy 2 Kaiser - 2015: $1,400,000**

This project will reinforce the area north of the former Kaiser Aluminum property along Hwy 2. The distribution system in this area is not able to reliably serve customers on a design day. Additionally, Avista serves the Inland Asphalt plant located north of this and cannot reliably serve this customer in the spring and fall. Approximately 8,000’ of 6” high-pressure steel will be installed. Engineering to start in 2014, construction planned for 2015. This project is the top reinforcement priority for the Spokane area.

**Q. What is the net change to electric rate base for the July 2013 through December 2015 capital investment?**

A. Electric net rate base for capital investment would increase $127,613,000, from $1,192,492,000 (after restating adjustment) to $1,320,105,000. Table No. 11 below summarizes the impact of this capital investment.

**Table No. 11:**

**Q. What is the net change to natural gas rate base for the July 2013 through December 2015 capital investment?**

A. Natural gas net rate base for capital investment would increase $30,083,000, from $202,648,000 (after restating adjustment) to $232,731,000. Table No. 12 below summarizes the impact of this capital investment.

**Table No. 12:**

**Q. How were the offsets determined for the July 2013 through December 2015 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 as a part of her Attrition study.

In addition, the output from generation assets is included in the AURORAXMP 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 AURORAXMP model.

**Q. What is the rationale behind the removal of capital expenditures for connecting new customers, in the Pro Forma Cross Check Study?**

A. The capital expenditures for the period July 2013 through December 2015 exclude distribution-related capital expenditures made that are associated with connecting new customers to the Company’s system. Excluding these capital expenditures from the Pro Forma Cross Check Study recognizes the fact that new customers provide incremental revenue that helps offset the costs associated with these distribution-related capital additions.

**V. COMPLIANCE WITH PAST COMMISSION ORDER ON CAPITAL EXPENDITURE REPORTING**

 **Q. Is the Company in compliance with the most recent commission order regarding capital addition compliance reports?**

 A. Yes. In Order No. 09, Dockets UE-120436 and UG-120437, the Commission Ordered the Company to file reports as noted in the below paragraph:

*“With regard to its planned capital expenditures for calendar year 2013, Avista must file: (1) a progress report on its 2013 capital expenditures on or before September 30, 2013; and (2) a comprehensive report on the final totals for 2013 capital expenditures on or before March 1, 2014.*

*As to the capital expenditures Avista plans to make in calendar year 2014, the Company must file: (1) its capital expenditure plan for 2014 on or before September 30, 2013; and (2) updates on*

*changes in meeting its capital expenditure plan for 2014 and reports on progress in making such capital improvements on June 1, September 1, and December 1, 2014, respectively, for the previous quarters[[6]](#footnote-6).”*

The Company filed its first Capital Compliance report on September 30, 2013 and will file the additional required reports on March 1, June 1, September 1, and December 1, 2014 as described above. The September 30, 2013 report demonstrated that the planned capital expenditures were occurring as anticipated.

**VI. 2016 CAPITAL ADDITIONS**

**Q. Why has Avista included information regarding 2016 capital additions?**

A. The Company has included 2016 information regarding capital additions to provide an indication of the Company’s ongoing need for additional rate relief beyond December 31, 2015. The 2016 plant additions[[7]](#footnote-7) have been included for information purposes only and have not otherwise been included in the Company’s request. As discussed further in Ms. Andrews and Mr. Thies’ testimony, the Company’s plans call for significant capital expenditure requirements over the next five years.

**Q. How were the Capital Additions for 2016 computed?**

A. The capital investment for 2016 was derived as a part of the capital budget process that was completed in the fall of 2013. The current forecasted capital spend for 2016

has been approved by the Board of Directors. Table No. 13 below, summarizes the gross capital additions by functional group, and for further detail, please see Exhibit No.\_\_DBD-4. The items listed in this table have the same types of projects as those described for the July 30, 2013 through December 31, 2015 additions discussed earlier in my testimony.

**Table No. 13:**

**Q. What is the net increase in electric rate base from AMA 2015 to AMA 2016 related to 2016 capital expenditures?**

A. Electric and Natural Gas net rate base for capital investment increased $73,436,000 from December 31, 2015 AMA balance of $1,320,105,000 to $1,393,541,000 at AMA December 31, 2016. This adjustment has two components: First, the December 31, 2015 AMA net plant balances, net of ADFIT, that were included in the Pro Forma Cross Check Analysis have been adjusted to an December 31, 2016 AMA basis. Next the 2016 addition together with the associated A/D and ADFIT were included to a December 31, 2016 AMA basis.

**Q. What is the net increase in natural gas rate base from AMA 2015 to AMA 2016 related to 2016 capital expenditures?**

A. Natural gas net rate base for capital investment increased $12,196,000 from December 31, 2015 AMA balance of $232,731,000 to $244,927,000 at AMA December 31, 2016. This adjustment has two components: First, the December 31, 2015 AMA net plant balances, net of ADFIT, that were included in the Pro Forma Cross Check Analysis have been adjusted to an December 31, 2016 AMA basis. Next the 2016 addition together with the associated A/D and ADFIT were included to a December 31, 2016 AMA basis.

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

A. Yes, it does.

1. The revenue producing capital for the period ended June 30, 2013 was adjusted separately to an EOP basis in Ms. Andrews Attrition Analysis as shown in Exhibit Nos.\_\_\_(EMA-2) and (EMA-3), because the Attrition Analysis reflects the growth in customers and growth in revenue from the test year to the rate year. The revenue-producing distribution plant for the twelve-months-ended June 30, 2013 capital additions for the Pro Forma cross Check Analysis was not adjusted to EOP, because the Pro Forma Cross Check Analysis does not include growth in customers and revenue beyond the historical test year. [↑](#footnote-ref-1)
2. For each of the periods July-December 2013, 2014, and 2015 distribution-related capital expenditures associated with connecting new customers to the Company’s system were excluded. The Pro Forma Cross Check Analysis does not include the increase in revenues from growth in the number of customers from the historical test year to the 2015 rate year, and therefore, the growth in plant investment associated with customer growth should also be excluded. [↑](#footnote-ref-2)
3. Id. [↑](#footnote-ref-3)
4. Id. [↑](#footnote-ref-4)
5. “The Handy-Whitman Index of Public Utility Construction Costs”, is 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. [↑](#footnote-ref-5)
6. *WUTC v. Avista Corporation d/b/a Avista Utilities,* Dockets UE-120436 and UG-120437,

Order 09, ¶¶ 114 and 115, December 26, 2012. [↑](#footnote-ref-6)
7. Distribution-related capital expenditures associated with connecting new customers to the Company’s system was excluded. The Pro Forma Cross Check Analysis does not include the increase in revenues from growth in the number of customers after the historical test year and therefore, the growth in plant investment associated with customer growth should also be excluded. [↑](#footnote-ref-7)