BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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

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

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 proposed pro forma adjustment for capital investments in utility plant for the 2011 test period. I will also discuss the planned 2012 and 2013 capital investment activity. In addition, my testimony and exhibits will cover the Company’s proposed changes in depreciation rates pertaining to electric and natural gas plant-in-service using the recently completed depreciation study.

A table of contents for my testimony is as follows:

Description Page

I. Introduction 1

II. 2011 Capital Additions 2

III. 2012 and 2013 Capital Additions 4

IV. Depreciation Study 31

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

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

##### II. 2011 CAPITAL ADDITIONS

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

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

December 31, 2011. A pro forma adjustment[[1]](#footnote-1) was made to restate plant-in-service at December 31, 2011, together with the associated accumulated depreciation and deferred federal income taxes at a 2011 end-of-period (EOP) basis. This adjustment includes annualizing the associated depreciation expense on the plant-in-service at December 31, 2011.

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

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

**Table 1:**



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

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

**Table 2:**



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

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

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

A. For 2012, she included all 2012 capital additions (excluding distribution-related capital expenditures made that are associated with connecting new customers to the Company's system), together with the associated accumulated depreciation and deferred federal income taxes at a 2012 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, 2011 was adjusted to a 2012 EOP basis.

She also reflected all 2013 capital additions (excluding distribution-related capital expenditures made that are associated with connecting new customers to the Company's system) together with the associated accumulated depreciation and deferred federal income taxes at a 2013 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, 2011 and the 2012 capital additions were adjusted to a 2013 AMA basis.

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

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

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

A. Many of the 2012 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 2007 through 2011 are shown in Table 3 below. The table shows that actual capital expenditures have been very close to the planned expenditures on a consistent basis. In fact, the five year average of actual expenditures is 99.8% 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 2012 and 2013 will occur and it is reasonable for them to be included for recovery in retail rates.

**Table 3:**

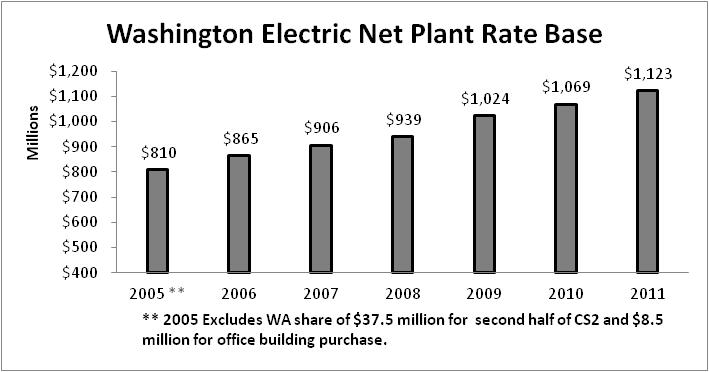
|  |  |  |  |
| --- | --- | --- | --- |
|  | Planned Expenditures  ($ millions) | Actual Expenditures  ($ millions) | Percentage of Planned |
| 2007 | $183.6 | $198.4 | 108% |
| 2008 | $194.2 | $205.4 | 106% |
| 2009 | $202.0 | $199.7 | 99% |
| 2010 | $228.3 | $213.5 | 94% |
| 2011 | $249.1 | $237.7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

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

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

In more recent years, however, Avista’s investment in utility plant has significantly exceeded 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 1 below.

**Illustration 1:**



The only way to ensure that retail rates are fair, just, reasonable, and sufficient is for the utility plant investment that is being used to serve customers be properly reflected in retail rates, net of appropriate offsets. This makes it necessary for the Company to include plant investment that is in service after the historical test year, and will be in service during the rate year so that rate base for the rate year is representative of the level of investment used to serve customers. The Company’s pro forma and attrition adjustments in this case properly reflect any offsets, and include adjustments to ensure a proper matching with test period loads.

**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 $130 million in 2005 to approximately $260 million in 2012. Capital expenditures of approximately $509 million are planned for 2012-2013 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 $1.2 billion are planned for the five year period ending December 31, 2016. Exhibit No. \_\_\_(DBD-2) reflects this trend that Avista has experienced and what is planned for in the near future.

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

A. As Company witnesses Mr. Kinney and Mr. Lafferty, in particular, explain in their testimony, the Company is being required to add or upgrade new 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.

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

**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[[3]](#footnote-3), 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 2 below, distribution poles fifty years ago would have a cost of only 9% of the current replacement cost.

**Illustration 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 2012 and 2013 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, which is how ratemaking is done.[[4]](#footnote-4) 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 structured, 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. Our O&M costs are continuing to go up over time, not down, as shown in Illustration 3 below.

**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

Hydro - Noxon Rapids Unit 4 Runner Upgrade - $8,300,000Hydro - Base Hydro - $1,427,000

Hydro - Regulating Hydro - $2,908,000Hydro - Kettle Falls Capital Projects - $3,622,000Hydro - Little Falls Powerhouse Redevelopment - $3,300,000Hydro - Post Falls Intake Gate Replacement - $4,600,000Hydro - Clark Fork Implement PME Agreement - $3,883,000

Hydro - Spokane River Implementation (PM&E) - $3,260,000

Hydro - Other Small - $294,000

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

The electric transmission 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 and system costs follows:

**Reliability Compliance Projects**Spokane-CDA 115 kV Line Relay Upgrades - $900,000SCADA Replacement - $1,262,000

System-Replace/Install Capacitor Banks - $1,627,000Bronx Cabinet 115 kV Substation Rebuild - $2,500,000Power Transformers - Transmission - $600,000**Contractual Required Projects**

Thornton 230kV Switching Station - $4,350,000

Colstrip Transmission - $410,000

Tribal Permits - $325,000

**Reliability Improvement Projects**

Moscow City-N Lewiston 115kV Reconductor - $2,500,000

Burke Thompson A&B 115kV Reconductor - $2,500,000

Millwood 115 kV Substation Rebuild - $690,000

Noxon-Hot Springs 230 kV Line Re-route - $500,000

Pullman (Turner) Substation Rebuild - $151,000

**Reliability Replacement Transmission Projects**

Transmission Minor Rebuilds - $2,370,000

Power Circuit Breakers - $1,200,000

Hatwai 230 kV Breaker Replacement - $610,000

Transmission Asset Management Projects - $3,479,000

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

**Washington Distribution Projects**

The Washington-specific electric distribution projects totaling $25.082 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 - $9,449,000

System Efficiency Feeder Rebuild - $7,371,000

PCB Related Distribution Rebuilds - $1,755,000

Distribution – Spokane North & West - $1,910,000

System Distribution Reliability Improve Worst Feeders - $1,228,000

Millwood Substation Rebuild - $1,000,000

Power Transformer Distribution - $958,000

Pullman (Turner) Substation Rebuild - $609,000

Metro feeder upgrade - $502,000

Wood Substation Rebuild – Orin - $300,000

**Washington Distribution Replacement Projects**

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

Electric Distribution Minor Blanket Projects - $5,065,000

Failed Electric Plant Distribution Line Relocation - $1,186,000

Distribution Line Relocation - $1,208,000

Electric Underground Replacement - $1,351,000

Spokane Electric Network Increase Capacity - $1,650,000

**Washington Smart Grid Projects**

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

Spokane Smart Circuit Project - $5,400,000

Pullman Smart Grid Demonstration Project - $6,300,000

Smart Grid Workforce Training Project - $1,300,000

**Idaho Distribution Projects**

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

Idaho Distribution and Replacement Projects - $12,229,000

Blue Creek 115kV Rebuild - $1,905,000

Distribution – Pullman & Lewis Clark - $650,000

Distribution – Cda East & North - $855,000

10 & Stewart Dx Int - $250,000

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

**Security Initiative - $500,000**

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

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

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

**Office Furniture - $520,000**

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 - $4,300,000**

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 2012 project will produce approximately $31,000 per year (system) in reduced energy costs, which have been reflected as a reduction to O&M costs.

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

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

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

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 3rd 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.

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

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

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

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

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.

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

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

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

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

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

This project is for changes at substations to improve the safety of telecommunication personnel and equipment. Telecommunication companies identified a concern with the safety of their employees around communication equipment located at high voltage substations. The result was that high voltage protection & isolation standards were created requiring that Avista take corrective actions or risk having the communication circuits to substations disabled. This affects Phone, Modem, SCADA, and / or Metering & Monitoring systems at the substations. This project was created to mitigate this risk as well as to lower potential risks to personnel and equipment.

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

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

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

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

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

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.

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

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

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

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

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

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 - $1,000,000**

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 - $4,571,000**

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 - $1,700,000**

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 - $5,000,000**

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 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.

**Gas Telemetry - $650,000**

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.

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

This project is an Idaho distribution project.

**Old Hwy 95 Relocation - $3,001,000**

This project is an Idaho distribution project.

**Klamath Falls Lateral - $2,500,000**

This project is an Oregon distribution project.

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

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

**Generation ($21.824 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 - Colstrip - $9,740,000

Thermal – Rathdrum CT - $917,000

Hydro - Base Hydro - $800,000

Hydro - Regulating Hydro - $1,900,000

Hydro - Kettle Falls Capital Projects - $960,000Hydro - Little Falls Powerhouse Redevelopment - $767,000Hydro – Nine Mile Redevelopment - $2,800,000

Hydro - Clark Fork Implement PME Agreement - $3,453,000

Hydro - Spokane River Implementation (PM&E) - $240,000

Hydro - Other Small - $247,000

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

The electric transmission 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 and system costs follows:**Reliability Compliance Projects**Spokane-CDA 115 kV Line Relay Upgrades - $1,450,000SCADA Replacement - $450,000

System-Replace/Install Capacitor Banks - $1,050,000

Moscow 230 kV Substation Rebuild - $7,619,000Bronx Cabinet 115 kV Substation Rebuild - $2,500,000Power Transformers - Transmission - $2,065,000Irvin 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

**Washington Distribution Replacement Projects**

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

Electric Distribution Minor Blanket Projects - $5,065,000

Failed Electric Plant Distribution Line Relocation - $1,213,000

Distribution Line Relocation - $1,397,000

Spokane Electric Network Increase Capacity - $1,763,000

**Washington Smart Grid Projects**

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

Pullman Smart Grid Demonstration Project - $195,000

Smart Grid Workforce Training Project - $1,300,000

**Idaho Distribution Projects**

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

Idaho Distribution and Replacement Projects - $14,770,000

Distribution – Cda East & North - $500,000

Distribution – Pullman & Lewis Clark - $500,000

System Wood Substation Rebuild - $3,705,000

N. Moscow Increase Capacity - $1,680,000

**General ($22.250 million - system):**

**Security Initiative - $500,000**

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

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

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

**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 3rd 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 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 if for the additional technology required to support remodeling or other facility work.

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

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

**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 customers. Examples of project approved under this program are adding new features and functions to the Claims system, adding an additional module to the Rate Software product, adding additional software for Apprentice Craft training and adding additional features to the Contract Management system.

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

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.

**DIMP Infrastructure - $400,000**

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

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

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

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

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

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

This annual project will reinforce portions of the existing 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.

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

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

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

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

**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:**



**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:**



**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.

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

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

**IV. DEPRECIATION STUDY**

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

A. Avista hired Gannett Fleming, Inc., to undertake a depreciation study of its depreciable electric, gas and common plant in service as of December 31, 2010. The Summary of the study is included as Exhibit No.\_\_\_(DBD-6). (Additional support is included in my workpapers (see Part 2 of 2 DeFelice Workpapers).) The objective of this assignment was to recommend depreciation rates to be utilized by Avista for accounting and ratemaking purposes. Also, it is sound accounting practice to periodically update depreciation rates to recognize additions to investment in plant assets and to reflect changes in asset characteristics, technology, salvage, removal costs, life span estimates and other factors that impact depreciation rate calculations. The Company last changed its depreciation rates in Washington effective January 1, 2008, in accordance with Order No. 05 dated December 19, 2007, issued in Docket Nos. UE-070804 and UG-070805. The depreciation rates approved by the Commission were developed from a study based on depreciable plant balances at December 31, 2006. The Company typically conducts depreciation studies at approximately five-year intervals. For the current study, Avista hired Gannett Fleming, Inc. to undertake a depreciation study of its depreciable electric, natural gas and general plant in service as of December 31, 2010[[5]](#footnote-5).

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

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

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

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

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

A. There are several definitions of depreciation. The following definition is referenced from the American Institute of Certified Public Accountants[[6]](#footnote-6):

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

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

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

A. These definitions are as follows:

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

**STUDY RESULTS AND DETAILS**

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

A. The study consisted of the following phases:

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

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

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

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

**Depreciation Rates**

**Existing % Recommended %**

**Functional Electric Group**

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

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

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%.

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

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

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

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

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

**Depreciation Rates**

**Existing % Recommended %**

**Functional Gas Group**

Underground Storage Plant 1.83 1.49

Distribution Plant 2.35 2.48

General Plant 5.01 3.69

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

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

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

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

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

A. Yes. The Company is proposing to switch the depreciation method applicable to specific classes of transportation equipment from mileage-based depreciation rates to straight-line depreciation rates. The Company is proposing to do this for several reasons. The prior depreciation studies and depreciation rate modifications have not included changes to the mileage-based depreciation rates applicable to certain transportation equipment. It has been many years since the depreciation rates for certain transportation assets have been studied and they need to be updated. According to the depreciation consultant, straight-line depreciation for transportation equipment is the standard method being used by other utilities. Moreover, Avista is contracting to purchase a new computer software system to calculate depreciation, and the new software is not designed to use mileage-based depreciation rates. Modifying the software to accommodate mileage-based depreciation rates will increase internal costs and inefficiencies.

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

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

A. Yes. Avista is making a similar depreciation filing with the Idaho Public Utilities Commission and the Public Utility Commission of Oregon. It is important that the Company maintain uniform plant accounts and depreciation rates on common plant that gets allocated to the various services and jurisdictions in which the Company operates. In the event different depreciation rates or methods were to be ordered, it would result in multiple sets of depreciation accounts and records that would need to be adjusted annually for changes in allocation factors, which would impose a costly administrative burden on the Company and unnecessary expense for the Company’s ratepayers.

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

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

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

A. Yes, it does.

1. Company witness Ms. Andrews incorporates the Washington share of the adjustment in her revenue requirement calculation. [↑](#footnote-ref-1)
2. 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. [↑](#footnote-ref-2)
3. “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. [↑](#footnote-ref-3)
4. 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. [↑](#footnote-ref-4)
5. 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 deprecation study adjustment included by Ms. Andrews in her revenue requirement computation. [↑](#footnote-ref-5)
6. American Institute of Certified Public Accountants by the Committee on Terminology, “Accounting Terminology Bulletin,” *Review and Resume Number 1*(1953). [↑](#footnote-ref-6)