BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-05_____

DOCKET NO. UG-05_____

DIRECT TESTIMONY OF

DAVID D. HOLMES

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

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

A. My name is David D. Holmes and my business address is 1411 East Mission Avenue, Spokane, Washington. My present position is Manager of Distribution Engineering.

Q. Would you describe your educational background and professional experience?

A. Yes, I am a 1977 graduate of Montana State University with a degree in Electrical Engineering. I originally joined the Company in 1977 and spent 18 years in various engineering and management positions including 5 years managing the Company's electric and natural gas metering departments. In 1995, I left the utility to develop advanced metering systems for Avista Advantage and then joined Avista Labs to direct their Application Engineering staff. In early 2003, I rejoined Avista Utilities to supervise the Distribution Engineering department. I am a Professional Electrical Engineer in the States of Idaho and Washington.

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

A. My testimony will describe Avista's proposal for implementation of Advanced Meter Reading (AMR) for Avista's customers in the State of Washington.

Q. Please summarize the Company's request in this case regarding Advanced Meter Reading, or AMR.

A. The Company proposes to install AMR devises on all Washington natural gas meters and replace all of its electric meters with new solid-state meters over a six-year period commencing 2006. The Company is not proposing a change in rates in this filing related to the implementation of AMR. Mr. Falkner, however, explains the Company's request for

authorization of regulatory accounting for the purpose of tracking the costs associated with this project.

Q. Does Avista have experience with the implementation of an AMR system within its other jurisdictions?

A. Yes. In November of 2004 the Company completed an AMR project to automate the balance of Avista's gas meters in the State of Oregon. Over 43,000 AMR devices were installed on schedule and within the Company's established budget. Currently, all operational efficiency and cost reduction targets have been met. In 2005, the Company will begin a four-year project to install 175,000 AMR devices on gas meters and replace its existing electric meters with new solid-state meters in the State of Idaho.

Q. Please summarize the Company's perspective on AMR.

A. Avista has been following the development of AMR over the past decade. The Company has taken two approaches to the acquisition of AMR. The first has been to implement AMR in areas where it is demonstrably cost-effective, including meter reading routes and customer locations that involve extensive driving, lack of access or other hazards. The second is to monitor development of AMR technology with an eye on the future. The Company intends to install systems that are long-lived and suitable for expansion. They should be compatible with existing systems and the associated benefits should outweigh costs.

Meter reading expenses in Washington have increased an average of 5.5% every year since 1995. Exhibit No._____(DDH-2), page 1 of 6 depicts historical meter reading expenses in Washington, Idaho and Oregon. To date, Avista has selectively installed AMR in areas that were previously determined to be cost effective or have represented a hazard for our personnel.

Continual increases in meter reading expenses as well as a decline in equipment pricing indicate that now is the time to commit to a broader implementation of this technology.

Q. What technology or type of AMR devices is the Company proposing to install?

A. The Company intends to utilize a combination of AMR technologies in its Washington service territory. In areas with higher meter densities, Avista intends to install radio-based technology, and a power line carrier (PLC) based technology in areas with lower densities. Radio based technology utilizes a low power radio signal that is transmitted to either a mobile collector or fixed network. Its range is generally a few hundred feet or more. Power line carrier is a technology that allows signals to be transmitted over existing distribution power lines. The PLC system typically has a higher per point cost than radio-based technologies and generally do not have as high data transfer rate. The Company will continue to use phone-based technologies for selected industrial accounts.

A number of factors will determine where each technology is utilized, including area geography, distribution configuration, installation costs and the presence of natural gas. All electric technologies will have the capability to provide hourly or more frequent interval data. Meters utilizing a radio-based technology will initially be read monthly through a mobile device. They will not require modification when a fixed network is added in the latter phases of the project.

Q. What is a fixed network, and how does it work?

A. A fixed network is comprised of radio receivers and repeaters installed throughout Avista's system. These devices receive data from the AMR equipment installed and then

forward it back to the Company's corporate offices. A fixed network system will have the ability to query specific readings for customers when accounts are opened and closed. Interval consumption data can be collected for all electric meter accounts, which will enable future time of use rate structures, as well as providing the customer with more detailed information on when energy is being used. A network will also provide information for outage restoration, tamper detection and information used in equipment sizing and operation.

Q. Please further explain the opportunity for time-of-use critical peak pricing.

A. The system Avista is proposing will allow us to collect energy consumption data in time intervals of one hour or less. Although this project does not include the necessary modifications to our billing system to implement a time of use or critical peak rate structure, the equipment that we are installing will provide all the field data necessary to support this type of system in the future.

Q. What other AMR systems did the Company review prior to selecting the technology it did?

A. Avista has evaluated several advanced metering systems. The Company has installed over 114,000 radio based and 350 PLC based AMR devices throughout Washington, Oregon and Idaho including 26,000 within the State of Washington. The majority of the Company's radio based equipment has been purchased from Itron. It is Avista's intention to competively bid all equipment used in the Company's AMR projects. The Company will continue to review vendor technologies to satisfy program requirements.

Q. How will the Company determine the most efficient means for program implementation?

A. An efficient deployment of AMR systems is based on the specific attributes of each geographic area. The Company's intent is to begin AMR installations in areas that will free up the most labor and promote operational savings. The efficient utilization of PLC technology is usually accomplished with the conversion of customers served by the same substation. Specific terrain and geographic densities would generally dictate the efficient deployment of radio-based systems.

Q. What are the benefits to the Company and its customers from the implementation of AMR?

A. In addition to the reduced labor and other costs associated with manual meter reading, this technology will provide the foundation for later adoption of retail energy pricing that may vary by hour of the day or day of the week. This type of pricing can ultimately be used to provide customer economic incentives to curtail usage during critical energy periods. The equipment Avista proposes to install will provide interval metering data, as well as indications of tampering and information on outage conditions. Data collected from this equipment will enable the Company to provide more flexible billing schedules for its customers. This equipment is not intended to provide aggregated demands for tariff calculations, however, it will enhance Avista's ability to provide consolidated billing statements for customers with multiple accounts.

AMR helps eliminate the need for estimated reads, reduce the volume of phone calls associated with estimated reads and the need for investigations related to such calls. Customer billings will be more accurate because estimates and misreads will be reduced. Additionally,

information obtained through a networked AMR system will be of value in determining specifications for distribution equipment used to serve our customers. Interval data provided by the system can be utilized for customer load research and rate development programs.

A networked AMR system can also provide information to help manage operations during outages and may prevent extended customer outages. There may be opportunities to provide meter-reading services for other utilities. Additional software (which will not be installed now, but can be added later), would allow customers on-line access to hourly load profile data, which would allow them the opportunity to better manage their electric consumption. Since all residential electric meters will be replaced with new solid state meters, customers will now be able to easily read kWh consumption values directly from the meter's LCD readout. These meters also have lower internal energy consumption, which helps to reduce system losses.

Finally, advanced meter reading systems reduce intrusions and associated liabilities and hazards for our personnel on customer properties. It will reduce our vehicular presence on Washington roadways and subsequently reduce both accidents and environmental impacts to Washington.

Q. What is the projected cost to install this system in Avista's Washington service area?

A. Preliminary estimates of the cost of installing this system in Washington is approximately $38,900,000. The Company is proposing that this system be installed with expenditures in each year spread out over a six-year time period as shown in Exhibit No. _____(DDH-2), page 2 of 6. It is important to note that these are preliminary estimates. The

selection of appropriate technologies for each location and vendor evaluation will begin in late 2005 or early 2006.

Q. What are the Company's anticipated hard dollar savings?

A. Avista believes that installing a fully networked AMR system on all of Washington's meters will represent an annual operations savings of approximately $2,493,000 expressed in 2004 nominal dollars. The majority of these savings (94%) is achieved through reduction in meter reading labor and associated expenses. The additional savings are represented by efficiencies in customer billing, customer service, reduced energy diversion and reduced meter maintenance, as shown in Exhibit No._____(DDH-2), page 3 of 6. Exhibit No. _____(DDH-2), page 4 of 6 shows the estimated savings associated with the installation on Avista's system.

Q. How do the costs associated with AMR compare with the expected cost savings?

A. The Company's preliminary estimates indicate that over a 20-year life of the new solid-state AMR meters, this project will result in a reduction of levelized electric revenue requirements of $2,779,510 as compared to the cost projections of not installing this system.

The Company estimates that over the 15 year life of devices installed on natural gas meters, this project will result in a reduction of levelized natural gas revenue requirements of $2,503,806, as compared to the cost projections of not installing this system.

Exhibit No. _____(DDH-2), page 5 of 6 depicts estimated annual costs, cost savings and net annual revenue requirements for an electric AMR system page 6 of 6 depicts estimated annual costs, cost savings and net annual revenue requirements for a gas AMR system.

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

A. Yes is does.