BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-10\_\_\_\_\_\_\_

DOCKET NO. UG-10\_\_\_\_\_\_\_

DIRECT TESTIMONY OF

BRUCE W. FOLSOM

REPRESENTING AVISTA CORPORATION

##### I. INTRODUCTION

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

A. My name is Bruce Folsom. I am employed by Avista as the Senior Manager of Demand Side Management (DSM). My business address is East 1411 Mission Avenue, Spokane, Washington.

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

A. I graduated from the University of Washington in 1979 with Bachelor of Arts and Bachelor of Science degrees. I received a Masters in Business Administration degree from Seattle University in 1984.

I joined the Company in 1993 in the State and Federal Regulation Department. My duties included work associated with tariff revisions and regulatory aspects of integrated resource planning, demand side management, competitive bidding, and emerging issues. In 2002, I was named the Manager of Regulatory Compliance which added responsibilities such as implementing the Federal Energy Regulatory Commission’s major changes to its Standards of Conduct rule. I began my current position in September of 2006. Prior to joining Avista, I was employed by the Washington Utilities and Transportation Commission beginning in 1984, and then served as the Electric Program Manager from 1990 to February, 1993. From 1979 to 1983, I was the Pacific Northwest Regional Director of the Environmental Careers Organization, a national, private, not-for-profit organization.

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

A. I provide an overview of the Company’s DSM programs and recent results. I also request a finding that Avista’s expenditures for electric and natural gas energy efficiency programs have been prudently incurred for calendar years 2008 and 2009.

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

A. Yes. I am sponsoring Exhibit No.\_\_\_(BWF-2) prepared under my direction. Exhibit No.\_\_\_(BWF-2) documents the results and cost-effectiveness of Avista’s DSM programs.

##### II. DSM PROGRAMS AND CURRENT PERIOD RESULTS

**Q. Would you please provide a brief overview of Avista’s DSM programs?**

A. Yes. Beginning in 1978 Avista has historically had a significant and consistent commitment to energy efficiency, spurring many innovations. For example, Avista initiated a large electric-to-natural-gas conversion program in the early 1990s. In the mid-1990s, while the electric industry was pulling back from offering energy efficiency services in expectation of retail electric competition, Avista pioneered the Energy Efficiency Tariff Rider. Now in its sixteenth year, the tariff rider was the country’s first distribution charge to fund DSM. The tariff rider is an “expensed” ratemaking pass-through mechanism (providing no additional earnings either through capitalization, shared-benefit incentives or fixed cost recovery) dedicated to funding customer facility and process energy efficiency improvements. The energy efficiency portion of Schedule 91 currently has a billed rate of approximately 4.65% of revenue for electric service and the Schedule 191 energy efficiency rate is 4.37% of revenue for natural gas. Avista has a proposal pending with the WUTC to increase the Schedule 191 rate. Schedules 91 and 191 also include revenue to support the Low Income Rate Assistance Program (LIRAP) which supplements federal and state funds to assist those customers least able to afford electricity and natural gas service.

The Company’s approach to energy efficiency is based on two key principles. The first is to pursue all cost-effective kilowatt hours and therms by offering financial incentives for most energy saving measures with a simple financial payback of over one year. The second key principle is to use the most effective “mechanism” to deliver energy efficiency services to customers. These mechanisms are varied and include 1) prescriptive programs (or “standard offers” such as high efficiency appliance rebates), 2) site-specific or “customized” analyses at customer premises, 3) “market transformational,” or regional, efforts with other utilities, 4) low-income weatherization services through local Community Action Agencies, 5) low-cost/no-cost advice through a multi-channel communication effort, and 6) support for cost-effective appliance standards and building codes. These will be described later in my testimony.

The Company’s offerings include 475 measures that are packaged into over 36 programs for customer convenience. As part of Avista’s planning efforts, over 3,000 measures are considered and then examined for cost-effectiveness. The Company’s comprehensive energy efficiency outreach, the “Every Little Bit” communications campaign, received several national honors in 2009. This comprehensive communication approach helps customers reorient their thinking about energy efficiency.

The Company’s programs are delivered across a full customer spectrum. Virtually all customers have had the opportunity to participate and a great many have directly benefited from the program offerings. As will be described later in my testimony, all customers have indirectly benefited through enhanced cost-efficiencies as a result of this portfolio approach.

**Q. Would you please provide an overview of the specific energy efficiency programs offered to residential customers?**

A. Yes. Avista offers the following residential programs:

**Illustration No. 1:**

**RESIDENTIAL**

High Efficiency Furnace/Boiler

High Efficiency Heat Pump

High Efficiency Variable Speed Motor

High Efficiency Tank Water Heater

Space Heat Conversion (Direct Use of Natural Gas)

Water Heat Conversion (Direct Use of Natural Gas)

Heat Pump “Conversion” (Electric Efficiency Upgrade)

Ceiling, Attic, Floor, Wall Insulation

High Efficiency Windows

Fireplace Damper

BuiltGreen™ (New Construction Energy Star®)

Something for Everyone

Energy Star® Appliances

CFL (and CFL Recycling) Promotions

"Second" Refrigerator/Freezer Recycling Program

"Geographic Saturation"

Community Events and Workshops

Low-cost/no-cost information

Direct Use of Nat Gas: Multi-Family Housing Conversion

Regional Market Transformation (NEEA)

On-line Home Audits

In-home Energy Audits (Spokane County, Cities of Spokane & Spokane Valley)

Ductless Heat Pump

Energy Star® Homes

Shade Tree

Distributed Generation (net-metering)

**LIMITED INCOME RESIDENTIAL**

Limited Income Weatherization with Community Action Programs

*(Note: All residential programs above are also available)*

The residential programs shown above are standard offerings or what we call “prescriptive programs.” These involve a menu of rebates on selected measures (e.g., lighting, weatherization, appliances, etc.).

**Q. And what do you offer for your commercial and industrial customers?**

A. For commercial customers, in addition to prescriptive programs, Avista offers “site-specific” programs. Site-specific programs are customized to the customer’s premises. The site-specific offering provides incentives on any cost-effective commercial and industrial energy efficiency measure. This is implemented through site analyses, customized diagnoses, and incentives determined for savings generated specific to the customer’s premises or process. The following illustration shows the programs available to Avista’s commercial and industrial customers.

**Illustration 2:**

**NON-RESIDENTIAL (COMMERCIAL & INDUSTRIAL)**

Site-Specific

*(Note: Incentives offered for most measures with > 1 year payback)*

EnergySmart Program

LEED Certification Incentives

Power Management for PC Networks

Premium Efficiency Motors

Food Service Equipment

LED Traffic Signals

Refrigerated Warehouse

Commercial HVAC Variable Frequency Drives

Retro-Commissioning

Clothes Washers

Side Steam Filtration

Demand Controlled Ventilation

Vending Machine Controllers

Lighting and Controls

Electric to Natural Gas Water Heater Conversion

Steam Trap Replacement

Green Motors Initiative

1. **Would you briefly discuss the Company’s staffing requirements and budget/actual expenditures?**
2. Yes. These programs are supported by twenty-three full-time equivalents (FTE) spread over 40 staff members. This does not include Company support from the Contact Center, Corporate Communications, Accounting and other direct and indirect support. The 2009 DSM budget (system, or Washington and Idaho, electric and natural gas) was over $23 million, representing an increase of $5 million over 2008. Expenditures in 2009 were approximately $27 million and exceeded budget to meet customer demand. Of the revenues collected under Schedules 91 (electric tariff rider) and 191 (natural gas tariff rider) in 2009, 73.8%was paid out to customers in direct incentives pursuant to the cost-effectiveness tests described below. This does not include additional benefits such as site audits and technical analyses provided to customers by the Company’s DSM engineering staff.
3. **What were the Company’s energy efficiency targets and results for 2009?**

A. The Company’s energy efficiency targets are established in the process of developing the Electric and Natural Gas Integrated Resource Plans (IRPs). These targets are revisited and adjusted to take into account new programs as part of our ongoing business planning process.

The results of Avista’s energy efficiency programs continue to exceed the targets established as part of the IRP process. Local electric efficiency savings for 2009 were 80.8 million kWhs (approximately 9.2 aMW) or 141% of the Company’s annual IRP target. “Local” results do not include those delivered by the Northwest Energy Efficiency Alliance (NEEA) which are reported in the second quarter and have ranged between 1 and 2 aMW for Avista’s share.

Over 147 aMW of cumulative savings have been achieved through Avista’s energy efficiency efforts in the past three decades; over 111 aMW of DSM is currently in place on the Company’s system, or the equivalent of two Kettle Falls Generating Stations. By comparison, Avista’s 2009 total electric retail load was approximately 1,100 aMW. The 2009 natural gas IRP savings targets for Washington and Idaho were 1.58 million therms. Over 2 million therms were saved in 2009, which is 128% of the 2009 annual target.

**Q. Please briefly explain Avista’s participation in the NEEA regional energy efficiency efforts.**

A. As I mentioned earlier, in addition to Avista’s prescriptive and site-specific programs, the Company funds and participates in the activities of the Northwest Energy Efficiency Alliance. NEEA focuses on using a regional approach to obtain electric efficiency through the transformation of markets for efficiency measures and services. An example of NEEA-sponsored programs that benefit Avista customers are efforts to decrease the cost of compact fluorescent light bulbs (CFLs) and high-efficiency appliances by working through manufacturers. For some measures, a large-scale, cross-utility approach is the most cost-effective means to achieve energy efficiency savings. This approach seems particularly effective for markets composed of large numbers of smaller usage consumers, such as the residential and small commercial markets.

The results from NEEA programs for 2009 have not been finalized as of the date of the submittal of this testimony. The preliminary estimate of Avista’s portion of NEEA’s 2009 results is approximately 1.1 aMW of savings which is approximately 40% lower than 2008. This was due to lower CFL sales than estimated.

1. **How do you inform your customers about your DSM programs?**

A. In 2006, Avista comprehensively reviewed the content and delivery process of our energy efficiency programs. An area identified for improvement was customer outreach. Our market research showed that customers thought they were doing what they could for energy efficiency, that it was too expensive, and/or that “it didn’t matter.” These findings led to our “EveryLittleBit” outreach campaign which is a multi-year, multi-channel effort to educate customers about the benefits of energy efficiency and to lead customers to our financial incentives and low-cost/no-cost “tips.”

Our focus on the residential side is to increase customer understanding of our programs and how our programs can help customers reduce their bills. We do this through bill inserts and communications to bring customers to our website with a “call-to-action” to use our financial rebates and follow our no-cost/low-cost suggestions.

We have equally beneficial programs for commercial and industrial customers. Illustration No. 3 below depicts a 2009 enhancement to our website, [www.EveryLitteBit.com](http://www.EveryLitteBit.com). This is an interactive tool to engage commercial customers and allows customers to quickly view programs that they can use, by “clicking on” a particular type of facility. A similar tool, “The House of Rebates,” is available for residential customers.

**Illustration No. 3:**



Avista’s EveryLittleBit campaign has been well-recognized nationally. E-Source awarded Avista top honors for the “best web-site” in 2009. Utility Communicators International provided the Company with 10 awards in 2009, related to the EveryLittleBit campaign, as a best-in-class initiative. Customer response has been similarly positive, as described later in my testimony.

**Q. How does Avista evaluate the success of its energy efficiency programs?**

A. Given the increased interest in evaluation of energy efficiency results, I will address Avista’s recent protocols and current plans for enhanced evaluation and future expectations. Avista uses several metrics for evaluating its energy efficiency programs. The primary measures for evaluation have been target achievement and cost- effectiveness. The latter has been the foundation for Commission review since the establishment of the tariff rider mechanisms in 1995. Based on these reviews, Avista has received findings of prudence from both the Washington and Idaho Commissions every year from 1995 through 2007. More specifically, the review standard has applied a combination of industry standards known as the Total Resource Cost (TRC) test and the Program Administrator Cost Test (PACT) (formally known as the Utility Cost Test (UCT)).[[1]](#footnote-1)

In 2009, stakeholders in both Washington and Idaho requested more detailed analyses on a prospective basis. This interest stems from several perspectives, including; 1) compliance with Washington’s Renewable Portfolio Standards (RCW Chapter 19.285 and WAC Chapter 480-109) relative to establishing electric savings acquisition targets and verification procedures, 2) Avista’s recently concluded general rate case, relative to natural gas decoupling, in which the Commission ordered the Company and interested parties to participate in a collaborative to examine specified evaluation, measurement and verification (EM&V) and low-income issues; and 3) a recent “Memorandum of Understanding (MOU) for Prudency Determination of DSM (Demand Side Management) Expenditures” filed with the Idaho Public Utilities Commission. The IPUC Staff is examining low-income service delivery for Avista’s Idaho customers.

Avista aspires to best-practices in all aspects of its energy efforts, providing transparent and accessible documentation of its energy efficiency evaluations to interested parties. The collaborative (for EM&V and low-income issues) is underway with a final report scheduled to be filed on or before September 1, 2010. The discussion with interested stakeholders on these issues in a unified and structured approach will facilitate a thorough and efficient review of key issues.

Without getting ahead of the discussion that will occur in the collaborative, Avista expects that its EM&V efforts will be ramped up in several areas discussed below. These areas will be modified by the collaborative as appropriate. As described in the draft plans, EM&V is intended to reflect all of the analyses necessary to supply information to stakeholders to adequately determine the prudence of Avista’s DSM Programs. EM&V includes “impact,” “process,” “market,” and “cost test” analyses. These are described below (and taken as a whole are synonymous with other terms such as “Portfolio Evaluation” or “Program Evaluation”).

Impact Analysis – Impact analysis provides the documentation necessary to prove that the savings estimated within a particular program are equal to the savings realized by all of the customers participating in that program. Impact analysis subcomponents include:

* + - Measure Verification applies principles of the International Performance Measurement & Verification Protocol (IPMVP). Only a single measure may be verified using this technique or protocol. The verification of a statistically significant number of projects using IPMVP techniques is often extrapolated to verify and perform impact analysis on whole programs. The following are parameters included for the verification of a measure.
    - Process for calculating the savings;
    - Incremental cost of a measure;
    - Installation date;
    - Measure life;
    - Claimed savings;
    - Rate schedule for Duel Fuel Incentive Calculator (DFIC) Calculation; and
    - Other

Process Analysis – Process analysis is the documentation of the continuous changes necessary to create, implement, modify and possibly terminate programs. The following items are included in process analysis.

* + - Contact information;
    - Changes to programs over time;
    - Rules for customer qualification;
    - Project cost data; and
    - Other

Market Analysis – Market analysis determines the effect of the marketplace on customer implementation of energy efficiency including customer costs.

Cost Test Analysis – Cost test analysis combines several industry terms relative to the evaluation of energy efficiency cost-effectiveness, including among others: Net-to-Gross analysis, Total Resource Cost (TRC) analysis, and Free Riders or Free Drivers.

Depending on the outcome of the collaborative, revisions to reported annual savings may occur due to the results of these EM&V protocols. These modifications of savings will be documented with supporting analyses and may yield increases or decreases in future reported savings.

**Q. What is the status of the tariff rider balance?**

A. The current tariff rider balance - both Washington and Idaho, electric and natural gas - is a negative $9,557,925 (i.e., dollars expended exceed dollars collected through the tariff riders). By jurisdiction and fuel, the negative rider balances are, as of February 2010: ($2,653,751) - Washington electric; and ($3,656,937) - Washington natural gas; ($2,008,944) - Idaho electric; ($1,238,294) – Idaho natural gas.

**Q. What are the causes of these negative balances?**

A. There are several reasons for these negative balances. First, the Company does not “cap” its energy efficiency efforts based on available revenue. Avista is committed to meeting customer demand for energy efficiency services in advance of revenue recovery. Second, the Company has leveraged the high level of public interest in “green” technologies to enhance the acquisition of cost-effective energy-efficiency measures. Third, periods of increased energy costs have heightened customers’ awareness of the benefits of energy efficiency. Simply stated, energy efficiency is one way for customers to have more control over their energy bill. Fourth, outreach works. Our EveryLittleBit campaign has resonated with customers. These leveraging opportunities and the customer response to the Company’s efficiency programs have exceeded our expectations.

The following shows the three-fold increase in rebates in the past five years:

**Illustration No. 4:**

**Q. What is the Company’s plan to address these balances?**

A. Schedules 91 and 191 are true-up mechanisms that are reviewed annually and revised, as appropriate, to reflect expenditures to fund energy efficiency programs. On the electric side, projected Schedule 91 revenues (at the current rates) are expected to provide for the 2010 energy efficiency budget and to reduce the negative electric rider balance by year-end 2010. There may be new programs that will be launched, or continued customer demand exceeding forecasts that will prevent returning the tariff rider balance to near zero, but this would be addressed in the January 2011 review period.

The largest negative balances are on the natural gas side. Despite an increase to the natural gas tariff rider rates in 2009, the natural gas tariff rider balances are not decreasing due to strong customer demand for natural gas efficiency measures. On February 12, 2010, Avista filed a tariff rider revision to Schedule 191 in Washington to reduce the Washington tariff rider balances. The Schedule 191 rate will, in turn, be reviewed in January 2011 and revised to reflect the anticipated decrease in the natural gas rider balance.

**Q. What kind of external oversight does the Company have regarding DSM?**

A. The Company has had an energy efficiency advisory committee in some form since 1992. The current stakeholder panel, the External Energy Efficiency (Triple E) Board, was established as a non-binding oversight group in 1999 to provide for improved opportunities for communication, input and oversight of Avista’s DSM portfolios. Avista currently facilitates meetings of the board twice per year, provides a full analysis of the results of DSM operations on an annual or more frequent basis, discusses (with appropriate concern for customer confidentiality) large projects, and provides the Triple E with a quarterly update of DSM activities. Additionally, the Triple E Board can initiate additional meetings of the board at their own request. Board membership has included representatives from regulatory, governmental, environmental, nationally recognized energy-efficiency experts, customer advocates for limited income and industrial segments as well as end-use customer participants.

**Q. Does the Company otherwise propose to increase its low-income weatherization funding as part of this filing?**

A. Yes. The Company proposes to increase its low-income weatherization funding for electric and natural gas service by a percentage amount equal to the percentage rate increase granted in this case for residential customers. The additional funding would be provided through the DSM tariff riders, Schedules 91 and 191.

Low-income weatherization and appropriate levels of funding are also part of the Company’s recently formed collaborative (as ordered by the Commission in Docket No. UG-090135, Order 10 at paragraph 306) with a report due to the Commission on or before September 1, 2010: “In a collaborative with the Parties, Avista is to ‘explore’ new approaches to low-income conservation, identify barriers to its development, and address the Energy Project’s concerns.” This may affect future proposed levels of low-income weatherization funding.

**III. PRUDENCE OF INCURRED DSM COSTS**

**Q. Would you please explain the Company’s request for a finding of prudence in this case?**

A. Yes. When the Commission approved the Company’s energy efficiency programs in 1995 (in Docket Nos. UE-941377 and UG-941379), Avista committed to demonstrating the prudence of program expenditures in future general rate cases. In the Company’s 2008 general electric and natural gas rate cases (Docket Nos. UE-080416 and UG-080417), the Commission issued a finding in Order No. 8 that electric and natural gas expenditures through December 31, 2007 were prudently incurred. At this time, the Company requests that the Commission issue a finding that electric and natural gas energy efficiency expenditures from January 1, 2008 through December 31, 2009 were prudently incurred.

**Q. Would you please summarize the Company’s energy efficiency-related savings for this time period?**

A. Yes. As shown in Exhibit No.\_\_\_(BWF-2), from January 1, 2008 through December 31, 2009, over 155 million kWh and 3.9 million therms of energy savings were obtained. Page 1 and 2 of Exhibit No.\_\_\_(BWF-2) detail the energy savings by regular and low-income portfolios for both electric and natural gas DSM programs.

**Q. Has there been ongoing review of the Company’s programs?**

A. Yes, as previously discussed, the Company has regularly convened a stakeholders forum known as the External Energy Efficiency Board. These meetings have included customer representatives, Commission staff members, and individuals from the environmental communities. These stakeholder meetings review the Company’s program offerings as well as the underlying cost-effectiveness tests and results.

**Q. Have the Company’s DSM programs been cost-effective?**

A. Yes. The electric programs have been cost-effective from both a Total Resource Cost (TRC) and Program Administrator Cost Test (PACT) perspective. Page 3 and 4 of Exhibit No. \_\_\_(BWF-2) shows that the 2008 and 2009 TRC benefit-to-cost ratio of 2.10 and 2.31 respectively, for the overall electric DSM program portfolio is cost-effective, with a net TRC benefit to customers of over $83.7 million. The 2008 and 2009 PACT benefit-to-cost ratio is cost-effective with a net PACT benefit of over $117 million. The levelized TRC and PACT cost is 5.3 cents (4.5 cents for 2008) and 1.9 cents per kWh (2.2 cents for 2008), respectively. The overall portfolio of measures has a weighted average measure life of 16.9 years for 2009 and 12.2 years for 2008. The comparable levelized electric avoided cost for a measure of this life using a flat loadshape is 9.8 cents per kWh for 2008 and 11.8 cents per kWh for 2009.

Page 5 and 6 of Exhibit No. \_\_\_\_ (BWF-2) illustrate the natural gas DSM program portfolio cost-effectiveness under both the TRC and PACT tests. The Company’s 2008 and 2009 TRC ratios were .86 and 1.27 respectively. The 2008 and 2009 PACT benefit cost ratios are 2.35 and 4.20 respectively. Therefore, the natural gas DSM portfolio passes the PACT test in 2008 and both the TRC and PACT tests in 2009. The 2008 TRC is lower than 1.0 due to one commercial customer in the state of Idaho who chose to pursue a series of projects identified by the Company as being uneconomic. This customer pursued the project predominately with their own funds. The customer did receive a relatively small incentive per Schedule 190 based upon the actual therm savings achieved through the project. The natural gas TRC for 2008, excluding this one customer, was 1.04.

**Q. Please summarize the Company’s conclusions.**

A. The Company’s expenditure of tariff rider revenue has been reasonable and prudent. A portfolio of programs covering all customer classes has been offered with a total savings of over 155 million kWhs and 3.9 million therms during January 1, 2008 through December 31, 2009. A levelized utility cost-per-saved kilowatt hour of less than 2.2 cents per kWh has been achieved. The levelized avoided costs based on a flat loadshape during this similar period was 9.8 and 11.8 cents per kWh for 2008 and 2009, respectively. The levelized utility cost of less than 40.9 cents per saved therm compares to 79.5 cents per annual therm and 81.0 cents per winter therm for the same period.

The Tariff Rider and energy efficiency programs have been very successful. Participating customers have benefited through lower bills. Non-participating customers have benefited from the Company having acquired lower cost resources in the form of DSM, as well as maintaining the energy efficiency message and infrastructure for the benefit of our service territory.

In closing, Avista respectfully requests that the Commission issue a finding of prudence for energy efficiency expenditures from January 1, 2008 through December 31, 2009.

1. **Does that complete your pre-filed direct testimony?**
2. Yes, it does.

1. The Total Resource Cost Test measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. The Program Administrator Cost Test measures the net costs of a demand-side management program as a resource option based on the costs incurred by the program administrator (including incentive costs) and excluding any net costs incurred by the participant. The benefits are similar to the TRC benefits. Costs are defined more narrowly. [↑](#footnote-ref-1)