# APPENDIX A

2012 DSM Business Plan

# 2012 DSM Business Plan

**Avista Utilities** 

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# **I. Executive Summary**

Avista's 2012 Demand Side Management (DSM) Business Plan contains a snapshot of the planning process for implementing the Company's energy efficiency programs, evaluating results, and processing associated issues in 2012.

This Business Plan describes how Avista's programs are structured and delivered to customers. It provides a "bottom-up" analysis built by measure and/or program. Avista traditionally prepares such a plan annually. With the advent of I-937 in Washington, this Plan is a regulatory requirement and is intended to be responsive to WAC 480-109 and the Washington Utilities and Transportation Commission's related Order in Docket No. UE-100176 approving Avista's 2010-2011 Biennial Conservation Plan with conditions.

Avista has continually been providing energy efficiency programs, uninterrupted, since November 1<sup>st</sup>, 1978. The Company's planning process builds on previous years' experiences and addresses a number of challenges in regard to achieving energy acquisition targets, meeting cost-effectiveness criteria and satisfying regulatory reporting requirements. The Plan focuses upon a number of other elements of DSM operations that are required to deliver upon the core mission of providing value to Avista's customers. The Company anticipates that the key challenges to be addressed in 2012 involve:

- Managing for the uncertainties created by the timing of the completion and delivery
  of several key determinants to Avista's energy acquisition claim. These uncertainties
  relate to the realization rates resulting from external independent electric and natural
  gas impact and process analyses and the completion of energy savings attributed to
  Avista based upon our participation in the Northwest Energy Efficiency Alliance.
- Meeting natural gas acquisition targets established within the most recent Integrated Resource Plan (IRP). This includes maintaining the cost-effectiveness of the natural gas DSM portfolio.
- Considering issues associated with combined-fuel Washington low-income portfolio cost-effectiveness. Continued focus will be applied to how best to analyze realization rates and the role that the low-income portfolio plays within the DSM portfolio.

Recognizing that success requires more than simply meeting the challenges of the future but also demand that opportunities are recognized and pursued, the Company has also established the objective of achieving progress within the following areas:

- Accelerate efforts to work with regional partners to improve the opportunities for natural gas efficiency acquisition through regional cooperation including, but not necessarily limited to, market transformation efforts.
- Ongoing management of net-to-gross issues. An increased proportion of non-incentive expenditures may put pressure on total resource cost sensitivities.
- Monitoring increasing regulatory costs, focusing on operational performance, and reviewing month-to-date results for program modifications will be central to 2012 DSM activities.

This business planning document is intended as a description of a continuous planning process at a particular point in time. To maintain, and enhance, the degree of meaningful external involvement within this process over the course of the following year, revisions and updates to the plans for 2012 are to be expected as part of the task of actively managing the DSM portfolio.

## II. Preface to the 2012 DSM Business Plan

Avista has traditionally performed a comprehensive business planning process for its Washington and Idaho DSM portfolio. In the recent past these have been performed on an annual basis. As of 2011, this exercise became a regulatory requirement subject to a November 1<sup>st</sup> filing deadline.

Avista views this process as an opportunity to optimize its approach to DSM on a 'blank slate' basis in that we do not necessarily take regulatory constraints as a given during this planning exercise. This is even more true in the development of our 2012 DSM Business Plan where we have incorporated the development of our first major revision to the tariffs governing our DSM portfolio in 12 years into this process. The filing of those tariffs is expected to occur by the end of November.

It is the Company's objective to create a stand-alone business plan document that summarizes Avista's thought process, conclusions and recommended actions for the following year. We have incorporated, either by reference or within the Appendices attached to this document, other relevant work products. Our emphasis in the planning and writing process has been upon substance rather than style; we always have and still consider this document to be a working document.

External parties charged with an oversight responsibility may want to pay particular attention to the "Issues for Management Focus" section of this document. This section summarizes the critical issues that are expected to be important to the success of the DSM portfolio in the following year and beyond. Generally, the issues noted within this section become, or are expected to become, a significant theme for Avista's three advisory groups during the next year.

There will, with certainty, be mid-course corrections over the course of the year. This is likely given that the portfolio optimization process that traditionally occurs as part of the business planning process was shortened due to a six-week delay in obtaining a revised Conservation Potential Assessment (CPA) necessary to fulfill expectations for the 2012-2013 Biennial Conservation Plan process. Revisions in program eligibility, incentives, the launch or termination of programs will generate an update to this plan and the Avista Advisory Group.

# **III. Reference Guide to Commonly Used Terms**

The following common terms are used frequently throughout the business planning and external advisory oversight processes. Though not all terms are applied within the 2012 Business Plan, this guide is intended to provide the reader and the members of Avista's oversight groups with efficiently referencing definitions.

## **Quick Reference Guide to Commonly Used Terms**

The following common terms are used frequently within Avista's business planning and portfolio management process. The definitions are presented here to provide greater clarity and more constructive discussion throughout the review of the business plan and for the external oversight of Avista's DSM portfolio in general.

## **Advisory Group** (formerly known as the Triple E Board)

Avista's group of external stakeholders who comment about the Company's DSM activities.

#### **Avoided Cost**

Theoretical costs that the Company would not incur by selecting an alternative path or option. Avoided costs, as defined by the Public Utility Regulatory Policies Act (PURPA), are incremental energy or capacity or both which but for the purchase from qualifying facilities the utility would either generate itself or purchase from another source.

## **AFUE** (Annual Fuel Utilization Efficiency)

The measure of seasonal or annual efficiency of a furnace or boiler. It takes into account the cyclic on/off operation and associated energy losses of the heating unit as it responds to changes in the load, which in turn is affected by changes in weather and occupant controls.

#### **AMI** (Advanced Metering Infrastructure)

Systems that measure, collect and analyze energy usage, from advanced devices such as electricity meters, gas meters and/or water meters through various communication media on request or on a pre-determined schedule.

#### **AMR** (Automated Meter Reading)

The technology of automatically collecting data from energy metering devices and transferring that data to a central database for billing and/or analyzing.

#### aMW

The amount of energy that would be generated by one megawatt of capacity operating continuously for one full year. Equals 8,760 mWhs of energy.

#### **ANSI** (American National Standards Institute)

A source for information on national, regional, international standards and conformity assessment issues.

**ASHRAE** (American Society of Heating, Refrigeration and Air-Conditioning Engineers To advance "technology to serve humanity and promote a sustainable world. Membership is open to any person associated with the field."

#### **Base Load Generation**

Electric generating facilities that are operated to the greatest extent possible to maximize system mechanical and thermal efficiency and minimize system operating costs.

#### **BCP – Biennial Conservation Plan**

Referring only to state of Washington; a result of RCW 19.285, Energy Independence Act (also known as Initiative Measure No. 937 or "I-937") mandate that utility companies obtain fifteen percent of their electricity from new renewable resources such as solar or wind by 2020 and to undertake all cost-effective energy conservation. The Washington State Utilities and Transportation Commission adopted WAC 480-109, *Acquisition of Minimum Quantities of Conservation and Renewable Energy* to effectuate RCW 19.285. The BCP is responsive to the energy efficiency requirements of WAC 480-109 and describes the savings targets, the programs that will achieve the targets and how those energy savings targets will be measured and presented.

#### **Black Scholes Model**

An option-pricing model derived in 1973 for securities options. It was later refined in 1976 for options on futures (commonly referred to as the Black 76 or simply "Black model"). The Black model is widely used in the commodity arena to value commodity options. The model can also be used to distinguish between underlying certain equivalent value of an asset and the risk premium associated with price volatility.

## **Btu** (British Thermal Unit)

The amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit. It is used to compare the heat producing value of different fuels. Natural gas futures and forward contracts typically are traded in mmBtu's (million of Btu's).

#### **CAP** (Community Action Partnership)

General term for Community Action Programs, Community Action Agencies, and Community Action Centers that through federal and state and other funding sources (e.g. utility constitutions) provide services such as low-income weatherization.

#### Capacity

Electricity: The rated load-carrying capability of a power generating unit or transmission line, typically expressed in megawatts. Some forward power contracts will specify the amount of capacity available that the purchaser pays a demand charge on the right to call on this amount of energy when needed. Many capacity contracts are analogous to a call option. Also, the maximum generation capability of an electric generating plant in any given hour.

Natural Gas: The rated transportation volume of natural gas pipelines, typically expressed in mmBtu's. Also, the maximum amount of Dth that can pass through a pipeline in any given day.

## **Capacity Charge**

In natural gas or electricity markets, a price set based on reserved capacity or measured demand and irrespective of energy delivered. Also know as a demand charge.

## **CEE** (Consortium for Energy Efficiency)

Consortium of efficiency program administrators from across the U.S. and Canada who work together on common approaches to advancing efficiency. Through joining forces, the individual efficiency programs of CEE are able to partner not only with each other, but with other industries, trade associations, and government agencies. By working together at CEE, administrators leverage the effect of their funding dollars, exchange information on effective practices and, by doing so, achieve greater energy efficiency for the public good.

## **CFL** (Compact Florescent Lamps)

CFLs use between one fifth and one third of the power of equivalent incandescent lamps. While the purchase price of an integrated CFL is typically 3 to 10 times greater than that of an equivalent incandescent lamp, the extended lifetime and lower energy use will compensate for the higher initial cost.

## **CNG** (Compressed Natural Gas)

The compression of natural gas in storage vessels to pressures of 2,400 to 3,600 pounds per square inch, generally for use as a vehicle fuel.

## **COB** (California Oregon Border)

Area where utilities in the Northwest connect to those in California and a very common trading hub or pricing point for forward electricity contracts.

#### **Coincidence Factor**

The ratio of the maximum simultaneous total demand of a group of customers to the sum of the maximum power demands of the individual customers comprising the group (in percent).

#### **CPA** (Conservation Potential Assessment)

An analysis of the amount of conservation available in a defined area. Provides savings amounts associated with energy efficiency measures to input into the Company's Integrated Resource Planning (IRP) process.

### **COP** (Coefficient of Performance)

The coefficient of performance of a heat pump is the ratio of the output of heat to the supplied work or COP = Q/W; where Q is the useful heat supplied by the condenser and W is the work consumed by the compressor.

#### **Cost of Service**

The actual costs of providing service to individual customers, groups of customers, or an entire customer base. In the energy industry, cost-of-service analyses are performed at all stages of the supply chain from generation through billing. Utilities use these studies to determine how to spread the rate increase to customer classes such as residential, commercial, industrial, and irrigation end-users.

#### Council

See the NWPCC (Northwest Power and Conservation Council).

## **Critical Energy**

The average energy produced under coordinated operation during the critical or highest-use period.

#### **Customer/Customer Classes**

A category(ies) of customer(s) defined by provisions found in tariff(s) published by the entity providing service, approved by the PUC. Examples of customer classes are residential, commercial, industrial, agricultural, local distribution company, core and non-core.

## **DCU** (Digital Control Unit)

Load control switch usually associated near end-use equipment (e.g. on an exterior wall of a home to control a hot water tank).

## **Decoupling**

In conventional utility regulation, utilities make money based on how much energy they sell. A utility's rates are set based largely on an estimation of costs of providing service over a certain set time period, with an allowed profit margin, divided by a forecasted amount of unit sales over the same time period. If the actual sales turn out to be as forecasted, the utility will recover all of its fixed costs and its set profit margin. If the actual sales exceed the forecast, the utility will earn extra profit.

## **DEER** (Database for Energy Efficient Resources)

A California Energy Commission and California Public Utilities Commission (CPUC) sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL) all with one data source. The Company and its third –party evaluators may reference this resource as they compile Technical Resource Manuals or Conservation Potential Assestments.

#### **Degree-Day**

A measure of the variation of one day's temperature against a standard reference temperature. There are both cooling degree-days (CDDs) and heating degree-days (HDDs). Utilities typically use degree days as a common measure of the trend amount of electric power to be consumed based on the heating or cooling demand. The difference between the mean daily temperature and 65 degrees Fahrenheit. A general measure of the need for heating (negative) or cooling (positive).

#### **Demand**

The load that is drawn from the source of supply over a specified interval of time (in kilowatts, kilovolt-amperes, or amperes). Also, the rate at which natural gas is delivered to or by a system, part of a system or piece of equipment, expressed in cubic feet, therms, BTUs or multiples thereof, for a designated period of time such as during a 24-hour day.

#### **Demand Factor**

The ratio of the maximum demand to the total connected load for a defined part of the electric system (in percent).

## **DG** (Distributed Generation)

Electricity that is generated from many small energy sources usually at the end-use or customer site.

#### Distribution

The portion of the utility system from the transformer in the substation to the Point of Delivery for the customer. The Distribution System is the "last stage" in providing service to the customer. It is typically the (lower voltage) circuits that are rated for 13.8 kV in Avista's system. These are the "lines behind your house" and can be underground as well as overhead.

### **DR** (Demand Response)

Mechanisms to manage the demand from customers in response to supply condition; for example, having electricity customers reduce their consumption at critical times or in response to market prices. Passive DR is employed to customers via pricing signals, such as inverted tier rates, time of use (TOU) or critical peak pricing (CPP).

## **DREE Project** (Distribution Reliability and Energy Efficiency Project)

DREEP is Avista's Living Lab for Smart Grid testing that analyzes many aspects of the distribution system in order to evaluate how the system can become more efficient. It includes 12 measures; one being Demand Response.

## **DSM** (Demand Side Management)

The process of helping customers use energy more efficiently. Used interchangeably with Energy Efficiency and Conservation although conservation technically means using less while DSM and energy efficiency means using less while still having the same useful output of function.

#### **Dth** (Decatherm)

A measure of gas volume equal to one million mmBtu's.

#### **EF** (Energy Factor)

The measure of overall efficiency for a variety of appliances. For water heaters, the energy factor is based on three items: 1) the recovery efficiency, or how efficiently the heat from the energy source is transferred to the water; 2) stand-by losses, or the percentage of heat lost per hour from the stored water compared to the content of the water: and 3) cycling losses.

#### Electric PCA, ERM

The Purchase Cost Adjustment (PCA) and Energy Recovery Mechanism (ERM) are regulatory accounting mechanisms designed to recover/rebate deferred power supply costs associated with such things as abnormal stream flow conditions and changes in the wholesale market prices.

## **Electric Trading Time Frames**

- 1) Heavy Load or Peak: Standard time frame for purchase/sale of electricity, 16 hours per day, Monday through Saturday, hours 0700 through 2200.
- 2) Light load or Off-Peak: Standard time frame for purchase/sale or electricity, Monday through Saturday, hours 0100 through 0600, 2300 and 2400, and all 24 hours on Sunday.
- All Hours of Flat 24 hours, every day of the time period. Forward electric transactions Trade in standard time frames of balance of the month, forward individual months, calendar quarters January- March, April June, July August and October November, and calendar years. All forward transactions can be peak, off-peak or flat.
- 3) Real -Time or Hourly: Electricity is purchased and sold every hour.
- 4) Pre-Schedule Electricity Heat Rate Swap: Selling gas and purchasing electricity or purchasing gas and selling electricity in proportions to roughly equate if generating at a specific plant with an estimated heat rate. Transaction is made to take economic advantage of changing relationship between electric and gas prices.

## EM&V (Evaluation Measurement & Verification)

This is composes of impact analysis (the measurement of the impact of the installation of an efficiency measure), process analysis (the evaluation of a process with the intent of developing superior approaches through obtaining a better understanding of the process itself), market analysis (evaluating the interaction between the market and measure to include the estimation of net-to-gross ratios, technical, economic and acquirable potentials) and cost analysis (the estimation of the cost characteristics of a measure with particular attention to incremental cost and the influence that a program may have upon those cost characteristics).

## **EPA** (United States Environmental Protection Agency)

EPA leads the nation's environmental science, research, education and assessment efforts. The mission of the Environmental Protection Agency is to protect human health and the environment.

#### **ERM**

See Electric PCA, ERM

#### **ERV** (Energy Recovery Ventilator)

An energy recovery ventilator saves energy and helps to keep indoor humidity within a healthy range. It transfers heat and moisture between the incoming and outgoing air.

### everylittlebit

Avista's Energy Efficiency Campaign. "When it comes to energy efficiency, every little bit adds up."

#### **FERC**

Federal Energy Regulatory Commission

#### Firm Power

Power or power-producing capacity intended to be available at all times during the period covered by a commitment, even under adverse conditions.

#### Firm Service

Natural gas or electricity service offered to customers that anticipates no planned interruption.

## **Firm Transportation**

Natural gas transportation services for which facilities have been designed, installed and dedicated to a certified volume. Firm transportation services takes priority over interruptible service.

#### **Fixed Costs**

Costs that the Company/customers will incur over various levels of activities.

## **GAMA** (Gas Appliance Manufacturer's Association)

Represents manufacturers of appliances, components and products used in connection with space heating, water heating and commercial food service.

#### **Heat Rate**

The quantity (expressed as a ratio) of fuel necessary to generate one kWh of electricity, stated in British thermal units (Btu). A measure of how efficiently an electric generator converts thermal energy into electricity (i.e. the lower the heat rate, the higher the conversion efficiency).

## **HRV** (Heat Recovery Ventilator)

A ventilation system that recovers the heat energy in the exhaust air, and transfers it to fresh air as it enters the building. HRV provides fresh air and improved climate control, while also saving energy by reducing the heating (or cooling) requirements.

## **HSPF** (Heating Seasonal Performance Factor)

The measure of the heating efficiency of a heat pump. The HSPF is a heat pump's estimated seasonal heating output in Btu's divided by the amount of energy that it consumers in watt-hours.

#### **HVAC** (Heating, Ventilation, and Air Conditioning)

Sometimes referred to as climate control, the HVAC is particularly important in the design of medium to large industrial and office buildings where humidity and temperature must all be closely regulated whilst maintaining safe and healthy conditions within.

#### I-937

Initiative Measure No. 937 in state of Washington mandate that utility companies obtain fifteen percent of their electricity from new renewable resources such as solar or wind by 2020 and to undertake all cost-effective energy conservation.

## IAQ (Indoor Air Quality)

IAQ is a measure of the content of interior air that could affect health and comfort of building occupants.

#### **IHD** (In Home Display)

A device used to provide energy usage feedback to a customer on a real or near-real time basis.

## **IOU** (Investor-Owned Utility)

A utility whose stock is publically traded and owned by private shareholders.

### **IPUC** (Idaho Public Utilities Commission)

The IPUC regulates investor-owned utilities within the state of Idaho.

## **IRP** (Integrated Resource Plan)

An IRP is a comprehensive evaluation of future electric or natural gas resource plans. The IRP must evaluate the full range of resource alternatives to provide adequate and reliable service to a customer's needs at the lowest possible risk-adjusted system cost. These plans are filed with the state public utility commissions on a periodic basis.

## **IRP TAC** (Technical Advisory Committee)

Internal and external advisory committee for the IRP process.

## **Interruptible Service**

Natural gas or electricity sales that are subject to interruption for a specified number of days or hours during times of peak demand or in the event of system emergencies. In exchange for interruptibility, buyers pay lower prices. Also for natural gas transportation or sales service which is subject to interruption at the option of any of the involved parties (seller, pipeline, LDC, buyer) because of energy shortages, capacity constraints, or economic considerations.

## Kilowatt (kW)

One thousand watts. A watt is 1/746 horsepower (kW = 1.34 horsepower) or the power produced by a current of one ampere across a potential difference of one volt.

## **Kilowatt-Hour (kWh)**

One thousand watts operating for one hour. Energy over time becomes work or 1.34 horsepower operating for one hour.

## **LDC** (Local Distribution Company)

A natural gas utility providing service to customers.

#### **Line Losses**

The amount of electricity lost or assumed lost when transmitting over transmission or distribution lines. This is the difference between the quantity of electricity generated and the quantity delivered at some point in the electric system.

#### **LIHEAP** (Low Income Home Energy Assistance Program)

Federal energy assistance program, available to qualifying households based on income, usually distributed by community action agencies or partnerships.

#### **LIRAP** (Low Income Rate Assistance Program)

LIRAP provides funding (collected from Avista's tariff rider) to CAP agencies for distribution to Avista customers who are least able to afford their utility bill.

## LMS (Load Management System)

LMS is used by Avista to send load control signals to Demand Response equipment to cycle and/or curtail customer appliances.

## **LNG** (Liquefied Natural Gas)

Natural gas that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure. It remains a liquid at minus 116 degrees Fahrenheit and 673 psig. In volume, it occupies 1/600 of that of the vapor.

#### Load

The amount of power carried by a utility system at a specified time. Load is also referred to as demand.

#### **Load Factor**

The ratio between average and peak usage for electricity and gas customers. The higher the load factor, the smaller the difference between average and peak demand. The average load of a customer, or group of customers, or entire system, divided by the maximum load can be calculated over any time period. For example, assuming 3650 therms of natural gas usage over a year, the average daily load is 3650/365 or 10 therms. If the peak day load or maximum load was 20 therms, the load factor was 50 percent.

#### **Load Growth**

This is the change, +/-, in the total therms (natural gas) and kWh (electric) that is consumed by retail customers from year to year. The amount the peak load or average load in an area increases over time (usually reported as an annual load growth in some percentage).

## **MAP** (Maximum Acquisition Potential)

The maximum amount of energy savings the Company could achieve under the Biennial Conservation Plan.

## **MDM/MDMS** (Meter Data Management System)

Used to organize meter interval data from an automated meter reading system.

#### Measure

A measure is a energy-efficiency product or service that can be offered relatively independently of other similar products or services.

## **MEF** (Modified Energy Factor)

A new equation that replaced Energy Factor as a way to compare the relative efficiency of different units of clothes washers. The higher the Modified Energy Factor, the more efficient the clothes washer.

#### Megawatt (MW)

One million watts, or one thousand kilowatts. Forward power contracts are normally traded in megawatts.

### **Megawatt-hour (MWh)**

One million watts operating for one hour, energy over time becomes work or 1,340 horsepower operating for one hour. A MWh is an average megawatt produced or consumed for one hour.

## **MERV** (Minimum Efficiency Reporting Value)

MERV ratings are used to rate the ability of an air conditioning filter to remove dust fro, the air as it passes through the filter. MERV is a standard used to measure the overall efficiency of a filter.

#### Mid-Columbia (Mid-C)

Electricity transacting hub or point, and point-of-connection to the transmission lines of the Columbia River hydro-generation facilities. The most common and liquid electricity trading point in the Northwest.

#### mmBtu

A unit of heat equal to one million British thermal units. Natural Gas contracts are typically traded in mmBtu's. One futures contract is 10,000 mmBtu's/day.

#### **NARUC**

National Association of Regulatory Utility Commissioners is an association representing the State public service commissioners who regulate essential utility services, such as electricity, gas, telecommunications, water, and transportation, throughout the country. As regulators, their members are charged with protecting the public and ensuring that rates charged by regulated utilities are fair, just, and reasonable.

#### **Native Load**

The retail customer load in which Avista has responsibility to plan and provide electric supply (includes scheduled losses incurred by Avista's systems; and does not include scheduled losses incurred by other parties wheeling of power on Avista's system).

#### **Natural Gas**

A naturally occurring mixture of hydrocarbon and non-hydro carbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

### **NEB** (Non-Energy Benefits)

Benefits (or costs) resulting from the installation of an efficiency measure that are unrelated to the energy resource. This may any value or cost but is most commonly the impact of changes in water usage, sewage cost, reduced maintenance cost, etc. Values or costs which cannot be reasonably quantified (such as security, safety, productivity) are not included in Avista's measurement of non-energy benefits

## NEEA

The Northwest Energy Efficiency Alliance is a non-profit organization working to encourage the development and adoption of energy-efficient products and services. NEEA is supported by the region's electric utilities, public benefits administrators, state governments, public interest groups

and efficiency industry representatives. This unique partnership has helped make the Northwest region a national leader in energy efficiency. NEEA operates programs in Idaho, Montana, Oregon and Washington. It is funded by leading Northwest electric utilities as well as Energy Trust of Oregon and the Bonneville Power Administration, which pays on behalf of its electric utility customers. This money is pooled and used to fund projects approved by our Board of Directors.

#### NEET

Northwest Energy Efficiency Taskforce was formed to bring together a group of high-level leaders to focus and improve the efficiency of electricity use throughout the Pacific Northwest. The taskforce will work to pull together innovative ideas from successful energy efficiency programs and explore how, through regional collaboration, energy efficiency can be delivered more efficiently. Part of the Northwest Power and Conservation Council.

#### **NERC**

North American Electricity Reliability Council Their mission is to ensure the reliability of the bulk power system in North America by developing and enforcing reliability standards; assess reliability annually via 10-year and seasonal forecasts; monitor the bulk power system; evaluate users, owners, and operators for preparedness; and educate, train, and certify industry personnel. NERC is a self-regulatory organization, subject to oversight by the U.S. Federal Energy Regulatory Commission and governmental authorities in Canada.

### **NPCC** (Northwest Power and Conservation Council)

The Council was established by the Northwest Power Act in 1980 to provide the electric customers of Washington, Idaho, Oregon and Montana with regional electric power planning coordination.

#### **Off Peak**

Times of low energy demand, typically nights and weekends. Off-peak hours in the Western U.S. are typified as the time from 10 p.m. to 8 a.m. Monday through Saturday, and all day Sunday. Forward contracts typically trade as on-peak, off peak, or flat (24 hours).

#### On Peak

Times of high-energy demand when it is at its peak. On-peak varies by region. In the Western United States, it is typically 6 a.m. to 10 p.m. Monday through Saturday. 0600 - 2200 Monday through Saturday, excluding NERC holidays.

## **OPUC** (Public Utility Commission of Oregon)

The agency that regulates investor-owned utilities in Oregon.

## **Participant Test**

One of four standard practice tests developed in California as a means to evaluate the cost-effectiveness of demand side management programs from the perspectives of different participants. The Participant Test shows the cost-effectiveness for the "participating" customer. It includes the value of the energy savings among other things from the project vs. the customer project cost.

#### **PCA**

See Electric PCA, ERM

## **PCT** (Programmable Communicating Thermostat )

A load controlling thermostat that can communicate with a utility's load management system by internet protocol or radio frequency (RF).

#### **Peak Load**

Maximum demand, Peak demand. The greatest of all demands that have occurred during a given period.

## **Peaking Capability**

Generating capacity normally designed for use only during maximum load period of a designated interval.

## **PGA** (Purchase Gas Adjustment)

The Purchase Gas Adjustment is a mechanism that is periodically filed with the Utility Commissions and designed to recover or rebate the deferred changes in the cost of natural gas purchased to service customer loads.

## **Photovoltanic** (PV)

Technology and research related to the application of solar cells for energy by converting sunlight directly into electricity.

#### **Power Plan**

The Northwest Power and Conservation Council is required to complete a regional Power Plan every five years. The Plan includes both supply-side (generation) and conservation resources. (Per the definition of "conservation" in the Northwest Power Act, electric-to-natural gas conversions are not considered to be "conservation" within the Plan). The Sixth Power Plan is currently nearing approval by the Council.

#### **PPA** (Power Purchase Agreement)

A legal contract between an electricity generator and a purchaser of energy or capacity.

#### **Prescriptive**

A prescriptive program is a standard offer for incentives for the installation of an energy efficiency measure. Prescriptive programs are generally applied when the measures are relatively low cost and are employed in relatively similar applications.

## **Program**

A program is an aggregation of one or more energy-efficiency measures into a package that can be marketed to customers.

## **PUC** (Public Utility Commission)

State agencies that regulate the tariffs (pricing) of investor-owned utility companies.

### **PUD** (Public Utility District)

A political subdivision with territorial boundaries greater than a municipality and sometimes larger than a county for the purpose of generating, transmitting and distributing electric energy and/or other utility commodities.

## **RAP** (Realistic Acquisition Potential)

The amount of energy savings the Company could realistically achieve under the Biennial Conservation Plan.

#### **Rate Base**

The capital investment (plant assets on the balance sheet) that regulatory commissions deem to be prudent and, therefore, allow to be recovered from customers. Further, it is the only utility cost that is allowed to have a profit component (return on equity) imputed upon it. All other costs are only returned dollar for dollar at the time of a rate case.

## **Rate Design**

The manner in which retail prices are structured to recover the cost of service from each customer class. Rate design includes pricing components such as basic charges, demand charges and energy charges.

## **Ratepayer Impact**

This concept is applied to analyses of projects to determine if the project will increase, decrease or be neutral to existing rates that customers currently are charged. This impact can be interpreted in total over the life of the project or year-by-year during the project's duration.

## **RGI** (Renewable Generation Incentive)

Avista's distributed renewable incentive in Washington.

#### **RIM** (Rate Impact Measure Test)

One of four standard practice tests developed in California as a means to evaluate the cost-effectiveness of demand side management programs from the perspectives of different participants. The RIM Test (aka the "non-participant test") indicates if the program will result in a rate increase or decrease. The non-participating customer bears the cost of the rate increase without obtaining any program benefits.

### **RTF** (Regional Technical Forum)

An advisory committee established in 1999 to develop standards to verify and evaluate conservation savings. Members are appointed by the Council and include individuals experienced in conservation program planning, implementation and evaluation. The RTF is also responsible for developing a conservation and renewable rate discount (C&RD) for the Bonneville Power Administration. The C&RD program awards rate discounts to customers who have implemented effective energy conservation measures. Part of the Northwest Power and Conservation Council.

#### **R-Value**

A measure of thermal resistance used in the building and construction industry. The bigger the number, the better the building insulation's effectiveness. R value is the reciprocal of U factor.

#### Schedules 90 and 190

These tariffs authorize Avista to operate electric-efficiency (Schedule 90) and natural gas efficiency (Schedule 190) programs within Washington and Idaho. Electric to natural gas conversions are considered electric-efficiency programs, subject to achieving a specified net BTU efficiency.

## Schedules 91 and 191

These tariffs establish a surcharge levied upon retail electric (Schedule 91) and natural gas (Schedule 191) sales to fund electric and natural gas-efficiency portfolios respectively.

## **Seasonality**

The seasonal cycle or pattern refers to the tendency of market prices to move in a given direction at certain times of the year. Generally, seasonality refers to the changing supply and demand over various times of the year.

## **SEER** (Seasonal Energy Efficiency Factor)

Performance Rating of Air-Conditioning and Air-Source Heat Pump Equipment. The higher the SEER rating of a unit, the more energy efficient it is. The SEER rating is the Btu of cooling output during a typical cooling-season divided by the total electric energy input in watt-hours during the same period.

#### **Site Specific**

A non-residential program offering individualized calculations for incentives upon any electric or natural gas-efficiency measure not incorporated into a prescriptive program.

#### **SNAP** (Spokane Neighborhood Action Program)

A Spokane organization that provides financial, housing, and human services assistance to low-income customers.

#### **Societal Test**

The societal test is one of four standard practice tests developed in California as a means to evaluate the cost-effectiveness of demand-side management programs from the perspectives of different participants. This is a true societal cost-benefit test in that all transfer payments are excluded and externalities are fully incorporated into the calculations.

#### T-5

Usually most efficient Tubular Type, 5/8 inch diameter fluorescent lighting.

#### T-8

More efficiency Tubular Type, 1 inch diameter fluorescent lighting.

#### T-12

Tubular Type, 12/8 inch diameter fluorescent lighting.

#### **Tariff Rider**

The surcharge on retail electric and natural gas sales that provides the funding for Avista's DSM programs. This surcharge is authorized under Schedule 91 (for electric programs) and Schedule 191 (for natural gas programs).

#### **T&D** (Transmission and Distribution)

Transmission is the portion of the utility plant used to transmit electric energy in bulk to other principal parts of the system. Distribution is the portion of the utility system from the transformer in the substation to the Point of Delivery for the customer. These are the "lines behind your house" and can be underground as well as overhead.

## **Technical Advisory Group**

Avista's group of external stakeholders who comment about the company's approach to the measures and measurements associated with DSM activities.

#### **Therm**

A measure of the heat content of gas equal to 100,000 Btu.

## **Throughput**

Related to natural gas load change, but usually referenced to the energy use per customer/premises/meter from year to year.

#### **TRC** (Total Resource Cost Test)

One of the four standard practice tests commonly used to evaluate the cost-effectiveness of DSM programs. The TRC test evaluates the cost-effectiveness from the viewpoint of all customers on the utility system. The primary benefits include the avoided cost of energy and non-energy benefits in comparison to the customer incremental cost and non-incentive utility expenditures. The California standard practice allows for tax credits to be considered offsets to the customer incremental cost (though Avista calculates the TRC test with and without this offset).

#### **TRM** (Technical Resource Manual)

A central document that provides a list energy efficiency measures and their associated savings values. Useful with regards to program management and evaluation, measurement and verification activities.

## **Triple-E** (External Energy Efficiency Board – see Advisory Group)

Avista's group of external stakeholders who comment about the company's DSM activities.

#### **U-Factor**

U-Factor measures the heat transfer through a window, door, or skylight and tells you how well the product insulates. The lower the U-Factor, the greater resistance to heat flow (in and out) and the better its insulation value.

(1/U = R-Value)

## **UCT** (Utility Cost Test)

One of the four standard practice tests commonly used to evaluate the cost-effectiveness of DSM programs. The UCT evaluates the cost-effectiveness based upon a programs ability to minimize overall utility costs. The primary benefits are the avoided cost of energy in comparison to the incentive and non-incentive utility costs.

## **UES** (Unit Energy Savings)

The amount of energy saved per unit of specific conservation measure; referenced in the Technical Resource Manual, Conservation Potential Assessment or Regional Technical Forum documentation

## **WACOG** (Weighted Average Cost of Gas)

The price paid for natural gas delivered to an LDC's city gate, purchased from various entities, such as pipelines, producers or brokers, based on the individual volumes of gas that make up the total quantity of supplies to a certain region.

#### Weather Normalized

This is an adjustment that is made to actual energy usage, stream-flows, etc., which would have happened if "normal" weather conditions would have taken place.

## **WUTC** (Washington Utilities and Transportation Commission)

The agency that regulates investor-owned utilities in Washington.

## 8760

Total number of hours in a year.

# IV. 2012 Reporting and Regulatory Issues

Avista annually produces over 30 reports for external review. In addition to relatively routine updates of regularly tracked DSM metrics and this annual business plan document, the Company also produces an annual update to the EM&V Plan and a DSM Annual Report containing the unaudited acquisition and cost-effectiveness calculations for the prior year's programs. Summaries of how these commitments will be delivered and applied and a general description of methodologies are outlined below.

As a consequence of other regulatory commitments and resource planning needs, the Company also produces separate electric and natural gas Integrated Resource Plans (IRP) every other year. This planning effort includes projections of cost-effective DSM potential as identified in a Conservation Potential Assessment (CPA).

Avista is also planning on submitting for regulatory approval a substantial revision to the tariffs that govern the implementation of our DSM programs (Schedule 90 for the electric programs and Schedule 190 for the natural gas programs).

The Company must also perform a recalculation of the DSM tariff rider funding requirements contained within Schedules 91 and 191. Annual revision to these tariffs is required within Washington. The Idaho tariffs are revised on an as necessary basis. These calculations are an inherent consequence of the budgeting process and are discussed later in this document.

It is notable that the Company has seen a proliferation of regulatory requirements and reporting obligations in recent years. This has been reflected in the significant percentage increase in labor cost devoted towards regulatory compliance, even beyond the needs associated with independent external third-party EM&V.

In addition to increasing regulatory compliance cost, there is the potential for diversion of management focus and creative energy towards regulatory compliance issues and away from DSM operations. There is a need to ensure that the impacts associated with these regulatory requirements don't compromise future operational performance. This will require ongoing management attention during the upcoming year.

## **Evaluation, Measurement and Verification Commitments**

Within its DSM portfolio, Avista incorporates Evaluation, Measurement and Verification (EM&V) activities as a key process to validate and report energy savings related to its measures and programs. EM&V protocols serve to represent the comprehensive analyses and assessments necessary to supply salient information to stakeholders that adequately determines the prudence of Avista's DSM Programs. EM&V includes Impact, Process, Market and Cost Test analyses and taken as a whole are analogous with other industry standard terms such as Portfolio Evaluation or Program Evaluation.

A primary responsibility of Avista's EM&V resources within its Policy, Planning & Analysis team is to support the ongoing activities of the independent third-party EM&V consultants and evaluators performing the various analyses required to substantiate the conservation acquisition. The 2012 EM&V budget provides for independent, third-party EM&V services that provide a comprehensive portfolio evaluation. EM&V results are intended to verify the level at which claimed energy savings have occurred, evaluate the existing internal processes, and suggest improvements to the program and ongoing EM&V processes. These findings are reported in the Annual Report on Conservation Acquisition and include analysis of both program and process impacts for the specific programs reviewed.

In addition to the external evaluations, Avista EM&V resources support internal evaluations of specific measures and programs. The results of these activities are used to inform program management decisions, evaluate program effectiveness and investigate program metrics.

To support planning and reporting requirements, several EM&V documents are maintained and published. These include the Avista EM&V Framework, an annual EM&V Plan and EM&V chapters within other DSM publications. Program-specific EM&V plans are created as required. These documents are reviewed and updated as necessary, serving to improve the processes and protocols for energy efficiency measurement, evaluation and verification. In addition, the development of the Technical Reference Manual (TRM) continues and will be managed as a principal planning and reporting mechanism relative to individual prescriptive measures and their respective unit energy savings (UES).

As a function of new measure development, an EM&V plan will be developed for each new program and will periodically be updated as informed by evaluation findings. Additional EM&V efforts will be applied to evaluating emerging technologies and applications in consideration of potential inclusion in the Company's energy efficiency portfolio. Avista may spend up to 10 percent of its conservation budget on programs whose savings impact have not yet been measured, if the overall portfolio of conservation passes the Total Resource Cost test as modified by the Council. These programs may include educational, behavior change, and pilot projects. Specific activities can include product and application document reviews, development of Measurement and Verification Plans, field studies, data collection, statistical analysis, and solicitation of user feedback.

Avista and its customers benefit from regional activities and resources in the energy efficiency and conservation domain. To engage with and contribute to the regional efforts, Avista EM&V staff has membership on the Regional Technical Forum (RTF) that serves as an advisory committee to the Northwest Power and Conservation Council. The RTF is a primary source of information relating to the standardization of energy savings and measurement processes for electric applications in the northwest. This knowledge base provides valuation of energy efficiency metrics and references that are suitable for consideration in Avista's acquisition planning and reporting.

Additional regional activities include engagement with other Northwest utilities and the Northwest Energy Efficiency Alliance (NEEA) in various pilot projects or subcommittee evaluations. A portion of the energy efficiency savings acquired within the region through NEEA's efforts are attributed to Avista's portfolio. Plans for 2012 include participation in NEEA's Regional Building Stock Assessment with coordinated data collection activities.

Avista's commitment to the critical role of EM&V is supported by the Company's continued focus on the development of best practices for its processes and reporting. Application of the principles of the International Performance Measurement & Verification Protocol (IPMVP) serves as the guidelines for Measurement and Verification Plans applied to Avista programs. The verification of a statistically significant number of projects using IPMVP techniques is often extrapolated to verify and perform impact analysis on complete portfolios within reasonable standards of rigor and a reasonable degree of conservatism. This will serve to insure that Avista will manage the DSM portfolio in a manner consistent with utility and public interests.

To best serve its customers and other stakeholders, Avista will seek the "best science available" for quantifiable UES values for energy efficiency measures. This encompasses consideration of all data and informational sources that are deemed pertinent to Avista's programs as delivered including the RTF, NEEA, consultant libraries, ENERGY STAR, Sixth Power Plan, California's Database for Energy Efficient Resources (DEER), Avista-specific impact analyses and other public sources. The collection of UES values will be subject to rigorous impact evaluations to be performed by a third-party evaluator and available to the Advisory Group for review.

Within Avista's Advisory Group, a Technical Committee subgroup serves primarily within the scope of EM&V applications and currently assists Avista with the development of EM&V protocols and related conservation program considerations. These activities include providing recommendations and guidance on functional aspects of implementation and evaluation. Principal interaction with Avista includes meetings, webinars and direct interchanges. In addition, Avista provides opportunities for the Technical Committee to review the evaluation, measurement and verification protocols.

## **Cost-Effectiveness Evaluation and Reporting**

Avista performs four basic cost-effectiveness tests as part of its DSM Annual Report which provides a retrospective of calendar year acquisition, cost-effectiveness, on a gross and net basis, actual to budget performance, tariff rider balances among other highlights. In the past, this annual report was completed using unevaluated savings. However, as stated in the 2012-2013 Biennial Conservation Plan, the 2012 DSM Annual Report will include evaluated savings and will be filed June 1, 2013.

These four basic cost-effectiveness tests include (1) the Total Resource Cost (TRC), (2) the Program Administrator Cost Test (PACT) or the Utility Cost Test (UCT), (3) the Participant test, and (4) the Rate Impact Measure (RIM) or Non-Participant test. Each of these tests evaluates the cost-effectiveness of a DSM program from different perspectives as stated below.

#### TRC

The TRC test is a measure of the benefits and costs accruing to the total ratepayer population. This is not a true societal test in that externalities are not quantified, however, influxes of funding to the customer base (e.g. federal or state tax credits) are considered as offsets to the customer incremental cost. Avista provides an additional calculation of the TRC test where the incremental cost is offset by tax credits when the presence of tax credits is known. Avista's avoided cost incorporates carbon costs. These variations to the TRC provide a calculation that looks more like a full societal test.

The standard practice tests call for the TRC calculation to be based upon only participants who were motivated by the program to adopt the efficiency measure ("net" participants). Avista provides the TRC calculation on both a gross (total participation) and net basis in recognition of varying regulatory requirements, Advisory Group members' interest as well as for comparison with other utilities.

The cost-benefit analysis of the TRC test provides a comparison of the present value of energy and non-energy benefits versus the customer incremental cost and utility non-incentive program cost. Incentive costs are considered to be a transfer within the ratepayer population and are neither a cost nor benefit.

### **PACT**

This is a measure of whether the program administrator or utility cost of serving all customers increases or decreases as a result of the program. This test compares the reduction in the cost of providing energy to the customer with the total cost (incentive and non-incentive) of operating the DSM program. The PACT generally yields a higher benefit to cost ratio than TRC since the customer incremental cost is usually significantly higher than the utility incentive and net positive non-energy benefits.

## Participant Test

The participant test provides cost-effectiveness from the perspective of the participating customer. This includes the retail value of the energy savings and non-energy benefits from the project versus the customer project costs. This is a useful measure of potential program adoption levels in that it provides insight into the "traction" that a measure or program may have with prospective participants (subject to several other considerations).

## Rate Impact Measure (RIM) or Non-Participant Test

This indicates the programs' impact upon retail rates. This test provides a comparison between lost retail revenue versus the incremental reduction in utility cost. If retail rates exceed the avoided cost of energy (inclusive of demand and other impacts), any DSM program is mathematically guaranteed to fail this test. Programs that target "underpriced" energy products (e.g. system load coincident energy usage) may conceivably pass the RIM test. The RIM test does not consider the impact of upon the customer billing determinants (energy usage), and is thus only applicable to program non-participants.

For business planning purposes, the primary focus is upon the TRC test (and variations upon that calculation based upon net-to-gross and tax credit treatment as well as the sub-TRC test methodology previously described). This is because, in nearly all cases, the TRC test will be a more stringent test than the UCT given Avista's limitation of incentives to 50% of customer incremental cost, with exceptions for small devices, low-income programs and market transformation efforts. It is Avista's general cost-effectiveness objective to maximize the net TRC benefits of the DSM portfolio, and in managing towards those ends will generally lead to the appropriate management for the remaining three standard practice tests, and in particular the UCT.

Measures and programs within each annual business plan are screened to eliminate (barring exceptions identified by the program manager) those that have a significant adverse impact upon the portfolio TRC. Last year, Avista filed revisions to Schedule 90 and 190, which govern the implementation of DSM programs, to exclude site-specific projects with energy simple paybacks of over 13 years (or 8 years for lighting) from incentives and from inclusion within the portfolio cost-effectiveness. Due to pre-existing contractual obligations, the full effect of this tariff revision will not occur until this year, 2012. Despite this level of individual measure, program and project screening, when evaluated at the aggregate level the incorporation of the fixed utility infrastructure costs represents an additional cost burden without offsetting benefits. Consequently it is possible to assemble a menu of cost-effective program components that result in a cost-ineffective portfolio if those fixed utility infrastructure costs are more than the programs can cost-effectively bear.

In recent years Avista has been shifting towards an approach that places greater emphasis upon implementation methods with higher fixed infrastructure cost, particularly increased program outreach and increased technical services. There is ample cause to believe that these investments could drive substantial increases in program throughput, but it is nevertheless a cost that is predominantly borne at the portfolio level. Thus, it is not adequate for individual measures and

projects to be cost-effective; they must be collectively cost-effective by a sufficient amount to offset fixed portfolio costs.

Since Avista operates both an electric and natural gas DSM portfolio, and many of these fixed infrastructure costs are jointly shared by the two portfolios, it is often necessary to allocate these shared costs. Avista allocates based upon the relative avoided cost of the two portfolios.

## **Integrated Resource Plans & the Conservation Potential Assessments**

Every two years, the Company files an updated electric and natural gas Integrated Resource Plan (IRP). The electric IRP was filed in August 2011 while the natural gas IRP will be filed in August 2012.

## Electric

For this past IRP, Washington Utility and Transportation Commission staff requested that an independent, external Conservation Potential Assessment (CPA) be completed for use in the 2011 Electric IRP. The Company contracted with Global Energy Partners (GEP) to complete this study for its Washington and Idaho electric service territory. The base year was 2009, the most recent full year of data, at the time the study began.

The CPA was prepared consistent with the Council's methodology and uses end-use modeling according to building characteristics, evaluates the measures from the Council's supply curves that are appropriate for Avista's service territory (in addition, measures from other sources were included), incorporates the Total Resource Cost (TRC) test including non-energy benefits, and incorporates the Council's ramp rates of resulting in 85% of economic potential for non-lost opportunity (approximately 65% for lost opportunity).

Since the electric IRP was filed, additional analyses was completed for I-937 purposes. For example, the effects from naturally occurring conservation were removed from the baseline. This was consistent with Council methodology and GEP worked with the Council in how this change was applied to the model. This change resulted in a 53% (was 48% with the naturally occurring included) growth in electric use over the study period (20 years) and an annual growth rate of 1.9% (was 1.7%).

GEP identified two Achievable Potentials – Realistic and Maximum – which represent a low and high range of achievable potential of conservation that exists within Avista's service territory. Maximum Achievable Potential (MAP) incorporates the Council's ramp rates while the Realistic Achievable Potential (RAP) incorporates adjusted ramp rates specific to Avista service territory. In some cases, MAP and RAP ramp rates exceed those of the NPCC.

The following table shows the resulting energy savings (or conservation) for Avista's Washington and Idaho service territory for 2012 and the cumulative amount at the end of the 20-year IRP planning horizon.

<u>Table 1</u>: Summarization of IRP acquisition projections

Energy Sales Forecast (MWh)	2012	2031
Baseline	8,805,759	13,009,405
Realistic Achievable	8,753,571	10,665,863
Maximum Achievable	8,714,574	9,842,555
Economic	8,554,821	9,311,028
Technical	8,469,456	7,843,997
Energy Savings (MWh)		
Realistic Achievable	52,188	2,343,543
Maximum Achievable	91,186	3,166,851
Economic	250,938	3,698,377
Technical	336,303	5,165,408
Energy Savings (as a % of Baseline)		
Realistic Achievable	0.6%	18.0%
Maximum Achievable	1.0%	24.3%
Economic	2.8%	28.4%
Technical	3.8%	39.7%

#### Natural Gas

The natural gas IRP process will be beginning in December 2011. For the past IRP, Washington Utility and Transportation Commission staff requested that an independent, external Conservation Potential Assessment (CPA) be completed for use in the 2012 Natural Gas IRP. The Company contracted with Global Energy Partners (GEP) to complete this study for its Washington, Idaho and Oregon natural gas service territory. The base year will be 2010, the most recent full year of data.

Since the last Natural Gas IRP, market conditions have changed significantly with the introduction of Shale gas. Avista anticipates that this will have approximately a 30 percent decrease in the natural gas avoided costs compared with our 2009 Natural Gas IRP. This would result in significantly lower DSM goals and increased difficulty to acquire cost-effective natural gas DSM resources.

The Technical Advisory Committee (TAC) meetings will begin in January 2012 and will conclude in April 2012. A draft natural gas IRP document will be distributed to the TAC in May 2012. The TAC will have a month to provide comments with a final review meeting in July 2012. The final Natural Gas IRP will be filed on or before August 31, 2012.

### Schedule 90 and 190 Revisions

The tariffs regulating Avista's DSM operations have been in place without major revisions since 1999. These tariffs were designed with the intent of providing the utility with the ability to make revisions to program details in a timely manner without the need for Commission process. This approach has been successful in facilitating the rapid design or redesign of programs to leverage market opportunities or incorporate changes resulting from updated equipment costs, estimates of energy savings and similar factors.

## **Current Tariff Description**

One of the core elements to the Company's current tariffs has been a formulaic guideline for efficiency incentives without specific reference to individual measures. Individual measure eligibility and related terms and conditions for participation within programs are also not specifically defined within the tariff. This degree of flexibility has allowed Avista to be more responsive in launching, modifying and/or terminating programs. Historically, this approach has been one of the primary reasons for the success of the DSM portfolio and its ability to respond to rapidly developing technologies and market conditions. The value of this approach was particularly evident in Avista's emergency response to the western energy crisis of 2001 and is frequently observed on a smaller scale.

Since 1999, several relatively minor modifications have been made to the tariffs themselves. For the most part, these consist of changes to the incentive formula in response to market conditions, resource needs and portfolio cost-effectiveness concerns. The most recent changes became effective in 2011 and consisted of establishing a maximum customer energy simple payback to exclude the incorporation of exceptionally non-cost-effective projects into the DSM portfolio.

The incentive formula contained within Schedules 90 and 190 is applied to site-specific projects in general conformance with a written policy governing the calculation and a standardized spreadsheet model. This approach contributes towards a reasoned, consistent and non-discriminatory application of the tariff and related policies.

With the acknowledgement of Advisory Group stakeholders, the formulaic guidelines are applied in a more general manner in the development of prescriptive programs. Reasonable rounding of incentives, consideration of how incentives may fit within a program continuum (e.g. incentives for 5 horsepower vs. 10 horsepower vs. 20 horsepower etc.), conformance with regional efforts, marketability and interactions with other local or regional programs are considered just cause for modifications to the amount dictated by a strict application of the incentive formula. Program managers have been encouraged to maintain the incentives within 25%, plus or minus, of the strict incentive calculation barring exceptional circumstances.

Traditionally the DSM business planning process includes a calculation of how the incentive formula would apply to each and every measure and sub-measure. That process has not been completed within this business plan in anticipation of the contemplated changes to these DSM tariffs explained in the following section.

## **Proposed Tariff Revisions**

The Company's revised tariffs (attached as Appendix A) retain the current incentive formula for application to individually assessed site-specific projects. This incentive formula will no longer apply to prescriptive programs, which will now be described within a series of separate tariffs containing general customer and measure eligibility requirements. Specific details required for program participation and the current incentive level for each individual measure will be contained within program plans, price lists and clearly worded plain language descriptions that will be available to customers and actively marketed.

The Company will retain the authority to modify aspects of the programs that are outside of the scope of the tariff itself in a timely manner without the need for specific regulatory process.

This approach will permit Avista the opportunity to continue to rapidly respond to market conditions and relieve the incentive formula constraints imposed upon prescriptive programs by the current tariff. In doing so, it will be possible to set tariffs that are specific to the program plan for each individual measure with full awareness of unique market conditions. These revisions will in general allow the fuller use of incentive pricing as a part of the comprehensive marketing of efficiency measures through the Company's DSM programs.

# V. DSM Portfolio Overviews

## **Residential Portfolio Overview**

The Company's residential portfolio is composed almost entirely of prescriptive rebate programs. Customers complete the installation of a qualifying energy efficiency measure and then have 90 days to apply to Avista for an incentive. The only efficiency measures that are not prescriptive are for multifamily residential customers where owners/developers may choose to treat entire complexes that affect residential customers. In these unique cases, the projects are treated site-specifically. There are other unique programs that are delivered through 3<sup>rd</sup> party contractors, for example, refrigerator recycling and regional manufacturer buy-downs for small devices such as CFLs. In-home energy audits are another exception to a typical prescriptive residential application in that, while administered by Avista, subcontractors schedule and complete the in-home audits. There are also residential savings acquired through cooperation with regional market transformation efforts discussed later under the Residential Lighting Program portfolio overview.

The residential market is expected to acquire 15% of electric and 37% of the natural gas savings through Avista's local programs during 2012. This amount, and particularly the natural gas acquisition, is subject to a significant amount of uncertainty due to the gradual discontinuation of state and federal tax credits and the impact of the Price of Gas Adjustment (PGA) revisions upon customer decision-making.

The measure-by-measure sub-TRC analysis provides guidance regarding measures at risk for termination in 2012. TRCs will be evaluated as external and internal impact analysis, updated TRM inputs and other factors affect estimated costs and benefits. In 2011 distributed generation projects, for example, failed to meet simple payback requirements for incentives and were in effect suspended until pricing or performance changes significantly. The timing of terminations is dependent upon the need for customer and trade-ally notice as well as approval of proposed tariff changes if applicable.

Residential programs will continue to be subjected to EM&V in 2012 and will be included in impact analysis as well as ongoing process tracking and process evaluations. In addition to a number of general process improvements made in 2011, the effort to automate rebate processing received approval to begin programming. The automation effort may be summarized into three major areas: customer self-service, data transfer and tracking into the customer service system (CSS), and automated file transfer to accounts payable. The first phase of this effort was completed in late 2011 with the launch of new data templates and tracking capabilities in CSS. Business requirements for automation continue to be worked on to complete a second important milestone of launching a web portal for customers to apply for incentives. The web portal will automatically populate the new CSS tracking templates. The final step projected to be complete in 2012 is to automate the transfer of information to accounts payable to allow further streamlining of rebate processing, avoid redundant data entry, reduce the number of checks issued, and make use of a bill credit option to speed up the payment process.

Results from a recently completed third-party natural gas impact evaluation and an electric and natural gas process report have been distributed to the DSM team. Recommendations affecting residential programs will be fully evaluated and considered for implementation in 2012. For example, recommendations affecting 2011 included changes to residential data collection to request additional information from participating customers as appropriate and additional datagathering on age and size of the home. Also, a data management audit resulted in implementation of multiple recommendations and process improvements related to residential programs. See the Data Tracking section for additional details.

Residential programs have a strong presence and coordination with regional efforts, such as those offered by the Northwest Energy Efficiency Alliance (NEEA). There is a separate section for NEEA but programmatically speaking there are regional efforts underway for Energy Star Homes, Consumer Electronics, Ductless Heat Pumps, and standard improvements for new heat pump water heating technologies. NEEA has also begun to consider seeking support for incorporating natural gas into its market transformation portfolio.

Residential programs have benefited from the sustained and significant customer awareness campaign, *everylittlebit*, to encourage customers to take advantage of energy savings programs from Avista. Outreach efforts have included broad media, online, print and participation at several events. In 2011, Avista reduced DSM-led outreach events while maintaining DSM tools for other departments to leverage their engagements with the public. This new approach was well received as DSM-led events reduced from over 50 to less than a dozen but DSM messaging and support is still available to other Avista departments wanting to include energy efficiency awareness in their efforts. Appendix C describes the individual program summaries.

## **Low-Income Portfolio Overview**

The Company's residential low-income portfolio is composed primarily of site-specific programs delivered by local Community Action Partner (CAP) agencies. Avista contracts with six CAP agencies to utilize existing infrastructure. This also leverages similar Federal Weatherization Assistance Programs for customer intake while also screening customers for complimentary energy assistance and other income-qualified programs that often serve as referrals for weatherization services.

Low-income efficiency measures are typically similar to measures offered under the traditional residential prescriptive programs due to cost-effectiveness guidelines. Low-income efficiency measures include other measures, like infiltration improvements, that have not been included in the residential programs but are well-suited to a site-specific approach.

A list of approved measures with a high predictability of adequate cost-effectiveness is provided to the CAP agencies. CAPs may submit other measures for approval if cost-effectiveness is in question. The approval process is supported by tracking cost-effectiveness in a near real-time basis. The historical mix of measures available to CAP agencies remains basically unchanged. In 2011, changes were made to calculations used to estimate low-income energy savings. This should help improve some noted gaps in savings results that were identified in impact evaluations.

Health and human safety measures which are deemed necessary to ensure the habitability of the home in order for residents to benefit from energy saving investments are also allowed within these low income programs. CAP agencies complete installation of the efficiency measures at no cost to qualified customer through the Avista funding. Administrative fees are paid to the CAP agencies for delivery of all of the programs discussed above.

The residential low-income market is expected to acquire 3% of electric and 4% of the natural gas savings achieved through Avista's local programs during 2010.

Low-income programs benefit from the comprehensive *everylittlebit* energy efficiency awareness campaign that is delivered broadly to all residential customers. Another valuable outreach approach for low income customers has been offering energy fairs. Energy fairs are led by the Consumer Affairs department to build awareness of non-weatherization low-income programs. The fairs are a natural fit to also communicate weatherization opportunities for low-income customers.

## **Non-Residential Portfolio**

The tariffs authorizing Avista's DSM programs for non-residential customers allow energy efficiency projects with a simple payback of greater than one year and less than 13 years for non-lighting technologies and 8 years for lighting measures.

Within the non-residential portfolio, programs are offered through a combination of prescriptive programs geared towards relatively common and uniform measures, applications and energy savings and also a site-specific program for all other efficiency measures and applications.

In the past, Avista has sought to use prescriptive programs to reduce the implementation expense as well as to simplify the communications to trade allies and customers. Though the general intent is to only use prescriptive programs for measures with significant throughput, the cost of fielding and implementing a prescriptive program is very minimal relative to serving the same customer demand through the site-specific program. The prescriptive programs that are providing little throughput and/or prove to have hugely variable savings estimates are evaluated annually to decide if they should be continued to be offered prescriptively or would be more appropriately handled on a site-specific basis. Efficiency measures that do not qualify for the Company's prescriptive programs can be considered under the site-specific approach. This program does require a pre-project contractual agreement which is done after the project analysis is complete. The analysis will identify the estimated savings opportunity and the estimated incentive payout.

A total of 68% of electric and 59% of natural gas local portfolio acquisition are expected to come from the non-residential segment.

## **Regional Market Transformation**

Avista's local portfolio consists of programs and supporting infrastructure designed to enhance and accelerate the penetration of energy efficiency measures through a combination of financial incentives, technical assistance, program outreach and education. It is not feasible for Avista, or any individual utility, to independently have a meaningful impact upon regional or national markets. Attempts to do so would fail by virtue of lack of scale and would suffer from 'leakage' of many of the benefits to other utility service territories.

Consequently utilities within the northwest have cooperatively worked together to develop the Northwest Energy Efficiency Alliance (NEEA) to address those opportunities that are beyond the ability of individual utilities to capitalize upon. Avista has been a participating and funding member of NEEA since the 1997 founding of the organization. NEEA is presently operating in a fourth funding cycle (2010 to 2014 inclusive). The current funding cycle has seen a doubling of the contractual funding from \$20 million regionally to \$40 million with actual expenditures subject to approval by the NEEA Board of Directors. The current funding cycle has also seen Avista's share of NEEA funding increase from 4.0% to 5.4% due to shifts in the distribution of regional retail end-use load.

Avista's criteria for funding NEEA's electric market transformation portfolio calls for the portfolio to deliver incrementally cost-effective resources beyond what could be achieved through the Company's local portfolio alone. The Company believes that these criteria will continue to be met in the foreseeable future.

The future of NEEA is not without challenges. Many of the benefits derived from the successful transformation of the residential lighting market are past. Though Avista believes that there is no single measure that can replace the success that NEEA has achieved within this market, there are favorable prospects within multiple markets that could collectively continue form the foundation of an ongoing cost-effective portfolio. Avista has a particular interest in the consumer electronics field, a field which in many ways shares the characteristics of markets where NEEA has been very successful in the past. Avista continues to review progress within these markets for potential leveraging through local program efforts.

In order to provide NEEA with the additional flexibility to deliver a high-value portfolio, Avista has taken the position that sector equity (across residential, commercial, industrial and agricultural markets) will not play a significant role in our evaluation of the regional portfolio. Historically NEEA's success has most frequently been in large markets composed of individually small customers (predominately the residential market). Avista believes that those local utilities that value sector equity are responsible for implementing local programs that, when aggregated with the regional portfolio, meet their desired equity objectives. Avista has a strong non-residential local program founded upon an account executive marketing structure that meets our needs for sector equity should NEEA adopt a strategy of disproportionately pursuing residential markets.

The Company has explicitly communicated with NEEA that the delivery of cost-effectiveness resources to our service territory is our primary criteria for success. This does demand a strong

consideration for the geographic equity in the distribution of NEEA benefits throughout the region. This has been a primary focus of Avista since the founding of NEEA and will remain so in 2012.

NEEA continues to work towards improvements in its ability to quantify the distribution of energy savings throughout the region. Avista intends to use the best available methodology for determining the benefits that accrue to Avista customers for purposes of monitoring geographic equity and Avista cost-effectiveness as well as for Washington I-937 acquisition claims and measurement against electric IRP targets within Idaho.

For purposes of the 2012 DSM Business Plan, Avista has assumed that NEEA will quantify 1.2 amW of energy savings (15% of the total Avista portfolio) within the Avista service territory. The jurisdictional distribution of energy savings and expense was estimated to 70% Washington and 30% Idaho. Avista has budgeted \$2.16 million for the electric market transformation portfolio, consistent with the full expenditure of \$40 million regional equally over the five year contract period and a 5.4% Avista share. Aside from minimal labor expenditures, the NEEA contractual dues are the only anticipated cost for the electric portfolio.

It is important, in 2012 and beyond, for Avista to continue to play an active role in the organizational oversight of NEEA. This is critical to ensure that geographic equity, cost-effectiveness and resource acquisition continue to be the primary foci.

## Prospects for a NEEA Natural Gas Market Transformation Portfolio

NEEA has initiated a preliminary investigation of the prospects for a natural gas market transformation portfolio. Avista has actively encouraged that NEEA explore such a role in the past. The Company has participated in and funded a preliminary evaluation of the prospects for a natural gas portfolio during 2011. Despite the challenges that natural gas efficiency currently faces (in terms of lower avoided costs and economic impediments to customer investments created by current macroeconomic conditions) Avista does believe that regional market transformation can be a valuable addition to the tools available to the utility industry in cost-effectively acquiring additional natural gas resources. The addition of this tool during the current challenging market for natural gas efficiency will make success even more valuable.

The preliminary investigation yielded five prospective measures suitable for market transformation. These prospective candidate measures are being evaluated by NEEA (with input from the funding natural gas utilities) to establish the nucleus of a permanent portfolio within the available funding.

Avista will continue to follow and contribute to NEEA's exploration of a natural gas market transformation portfolio during 2012. Avista's key criteria for a successful effort are the same as those that have been applied to the electric portfolio for the previous 14 years; a cost-effective augmentation to the DSM portfolio delivering measurable resources to Avista customers with an acceptable geographic equity.

Avista has budgeted \$146,000 as a placeholder for a NEEA natural gas funding during 2012, though there has been no contractual commitment to this or any amount. The Company does not anticipate any measurable resource acquisition within 2012, primarily due to the lag inherent in market transformation investments. The inclusion of expenditures without resource acquisition in the first year of the portfolio does not indicate the expectation that the portfolio will not be cost-effective in the long-run, but it does indicate a degree of risk that should be managed through the active participation in this investment.

# VI. DSM Operations Support Functions

#### **DSM Outreach Program**

In September of 2007, Avista increased its promotion of energy efficiency through the *everylittlebit* campaign. Prior to launching the campaign, market research was conducted in an attempt to gauge customer awareness and willingness to participate. Through this research, perceptual barriers were identified which supported the creation of the *everylittlebit* outreach effort. In 2006, Avista processed over 6,500 residential rebates. After slightly over three years of direct promotion, residential rebates processed during 2010 exceeded 34,000. While other factors such as Avista incentive increases and state and federal tax credits certainly contributed to the increase, it is believed that the overall campaign outreach has contributed significantly to residential program participation. As federal and state tax credits diminish in availability and monetary value, so did the overall number of rebates processed as compared to 2010.

## **Key Market Research Findings**

The *everylittlebit* campaign is built on a foundation of broad reach, multi-media outreach designed to inform customers about general energy efficiency program availability while providing educational energy efficiency messages with the intent of driving increased participation. The genesis of this campaign came from market research in which customers indicated their concerns about energy efficiency practices were generally:

- "it costs too much"
- "I've done all I can"
- "It doesn't make much difference"

The everylittlebit theme was chosen to address and overcome these perceptual barriers.

#### Driving Customers to Program Participation through General Awareness Building

As a broad reach, multi-media campaign, the *everylittlebit* outreach effort uses multiple channels, including website, web banners, print and broadcast outreach (radio and television), print material (brochures, signage, etc.), outdoor billboards, social media, participation in community events and other methods to reach customers. The intent is to educate and encourage customers to install energy efficient measures and practice energy-conserving behaviors with the "call to action" being a visit to the Company's website (www.everylittlebit.com) to get more information or download a rebate form.

#### <u>Including Targeted Program Participation in General Awareness</u>

During the second and subsequent years the program was designed to become progressively more specific. Decisions regarding target programs are based partly upon the measure and program cost effectiveness calculations as well as the ability to drive additional participation through outreach investments.

#### 2011 Updates

Beginning in 2011, traditional media was leveraged and maximized to create shorter versions of the existing television spots. This was due to the increasing need for shorter messages to consumers. In the last few years 15 second TV spots made up a significant portion of national and regional advertising budgets. A 15 second spot allows for greater exposure within the same budget. Also, a short message that delivers the points quickly is actually preferred by consumers given the attention span of today's audience of multi-taskers.

#### Social Media Channels

Also in 2011, we continued to explore social media channels such as Facebook more frequently and consistently as both a viable and cost effective advertising channel. The latest awareness research conducted at the end of 2010 shows awareness of energy efficiency and Avista's programs high among audiences aged 45+, while the 18-44 audience remains difficult to reach, given social media, DVR and on-demand opportunities. With this in mind, Avista responded by increasing its focus on programs, such as the CFL direct mail program, the Efficiency Matters Toyota Prius Giveaway program (which increased website traffic 125%), the Power Down Add Up competition for college living groups. Additionally campaigns were developed around the new Aclara Home Energy Advisor product and developing a comprehensive Commercial Industrial energy-efficiency campaign. All of these initiatives were in addition to a general awareness media buy.

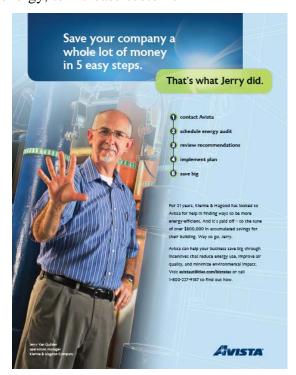
# 2012 Campaign Sustains Existing Efforts

The *everylittlebit* campaign will continue into 2012 as a primary means to reach customers with low-cost/no-cost opportunities for saving energy, to increase customer

participation in our energy efficiency programs and to underscore the value of saving energy. Broad reach media will be evaluated and adjusted as more directly targeted campaigns are developed.

#### Commercial and Industrial Outreach

Since 2009, we have offered the webpage "Efficiency Avenue", an online tool which guides business customers to our commercial and industrial rebate programs. The website also maintains a number of low-cost / no-cost efficiency measures that customers can implement to manage their energy use, as well as the ability to sign up for Avista's online energy efficiency business newsletter, called Energy Solutions for non-residential customers. Since its launch, we have had more than 150 inquiries from customers through the online contact form.



For 2011, we developed a comprehensive print campaign designed to educate business customers about the many prescriptive and site-specific programs available. The focus of the campaign profiles business customers within Avista's service territory and features the measures they have implemented and the savings they have achieved. This campaign targets the business community and shares the value of energy efficiency and Avista's energy efficiency incentives from a customer perspective. This campaign launched in late 2011 and will continue into 2012.

# Market Research Updates

Tracking research updated in 2010 indicates there has been an increase from 16% to 28% in the number of customers in all states who said they are participating or have participated in Avista's energy efficiency program. This is consistent with the trend in residential rebates processed. Customers who are familiar with Avista's energy efficiency programs increased, with approximately 8 in 10 (82%) customers who say they are at least somewhat familiar (36% are very or extremely familiar). Customers are most familiar with the weatherization incentives and the high efficiency equipment incentives. Both of these initiatives were featured in the *everylittlebit* campaign messages. Approximately 6 in 10 (61%) customers said they are very or somewhat likely to participate in energy efficiency programs in the future.

# In Home Energy Audit Targeted Promotions

In 2010, we introduced the residential In-Home Energy Audit program in Spokane County, cofunded by the American Recovery and Reinvestment Act (ARRA) through municipality partnerships. Municipal partners committed their Energy Efficiency and Conservation Block Grant (EECBG) funding to a joint effort to offer a reduced cost home audit to customers within their jurisdictions. The audit includes both internal and external inspections as well as diagnostic tests including a blower door test to detect outside air infiltration, pressure pan test for heating system duct leakage and a combustion zone test for natural gas fired furnaces, water heaters and ovens. Some minor energy efficiency measures will be installed and an energy efficiency kit, including CFLs and other energy saving items, is left with the homeowner.

date, the In-Home Energy Audit program has performed over 750 audits with 13% of those people also participating in the Avista residential rebate program. This program is scheduled to run through September 2012.

#### Multi-Department Collaboration

The outreach effort is coordinated with ongoing updates to sub-TRC analysis by Avista's Policy, Planning and Analysis team. It is integrated into and directly supports the long-term program management planning process. Efficiency messages that are not associated with individual programs come out of an internal collaborative process incorporating input from DSM engineering staff, program managers, program outreach specialists and the PPA team. The intent is to maintain a fresh and informative appeal to the overall outreach effort.

The additional throughput that can be obtained from our outreach investments also takes into consideration the opportunity to leverage the growing efficiency messaging in the general media

and partnerships with utility and non-utility organizations. The *everylittlebit* campaign is also integrated into earned media opportunities through Avista's Corporate Communications Department.

#### **Rebate Processing and Automation**

During 2010 an internal evaluation of the Company's rebate processing efforts began. The first goal was to utilize "Lean Six Sigma" business management strategies to review the current residential rebating process (from customer application to final rebate payment) and determine if changes could be made to provide for further efficiencies, improved accuracy and cost savings.

A second goal was to identify any areas in the new process that could be automated, thereby reducing the potential for errors. Automation could include moving customer applications to a web-based approach, transmitting electronic customer applications to a customer service database, and streamlining the automated payment requests to the Company's accounts payable department.

A cross-functional business improvement team was developed to look into these issues. This process continued into 2011. The team consisted of employees from Avista's Energy Solutions (the DSM team), Customer Service, Accounts Payable, Strategic Project Development, Marketing, Process Improvement and Enterprise Technology departments. The team focused on reviewing the current state of rebate processing, "challenging" each step of the process by reviewing whether a particular process was necessary, accurately controlled, and whether it added value to the customer in the long run. The team scrutinized the amount of time it takes to process residential rebates, the number of touches and steps in the process, and the total number of handoffs for each rebate. The team conducted a thorough review of the residential rebate process.

As it relates to non-residential rebate processing, those rebates continue to be reviewed and processed by the individual program managers in a manner similar to the processing of site-specific energy efficiency incentives. Given that the volume of non-residential rebates is considerably less than the quantity of residential rebates (i.e., hundreds versus tens of thousands), no further review was warranted.

In addition to the business process review discussed above, an independent external review of data management was conducted for the residential, low income and non-residential rebate processes. The audit report was completed in 2011 and recommendations were responded to and implemented with some requiring further evaluation. A summary of the data management audit report is listed further below.

To maximize customer value and minimize inefficiencies and errors, the business improvement team believed that there should be further automation in the processing of residential rebates. The current manually intensive process was established when the number of rebates was considerably less and is not the most ideal system given that the volume of rebates has increased substantially. The manual processing of rebates is time consuming and labor intensive, making it prone to the possibility of errors. Between the manual process and the fact that a notable

percentage of all rebates received from customers are either incomplete or inaccurate, it would take approximately 8 minutes to accurately process one rebate. Given that the Company processed over 35,000 rebates in 2010, rebate automation along with improved efficiencies and accuracy was identified as a value-added opportunity for the Company and its customers.

Current year activities have been very productive as programming to implement the first phase of the automation began in the summer of 2011. User acceptance was successful this fall and the necessary updates to the customer service database (CSS) were completed. Programming work is underway for the web portal with completion due near the end of 2011. After successful user acceptance testing, customers will be introduced to the online application process. Further into 2012 the final phase to automatically transfer payment request data to accounts payable will be undertaken.

The business improvement team identified several objectives that could be achieved through the automation of the rebating process.

- Instant crediting to customers' accounts;
- Self-service automatic verification of customer;
- Accurate input by customers through web-entry allows for confirmation of completed rebate request information;
- Automatic transfer of customer application into CSS;
- Built in eligibility and verification checks;
- Provide for a reduction in number of checks printed and mailed;
- Rebate status updates via email.

Some of the improvements resulting in further rebate accuracy have already been implemented, as described above. However, the majority of the improvements in rebate processing will be achieved through automation. As noted above the company is currently complete with phase one, updates to the CSS system are well into phase two, web-portal design and integration.

#### Data Management

Avista completed an independent, third-party evaluation of the data tracking systems and data strategy for its DSM programs in 2011. The review was to examine Avista's internal operations for data entry, tracking and reporting, along with its systems for ongoing review, oversight and controls to ensure data accuracy.

Key expectations of the review were to gain a perspective of industry best practices regarding data management strategies and examine the appropriateness of documentation requirements for participating customers. The implementation team evaluated and considered the audit report recommendations which resulted in numerous process changes and improvements.

The Moss Adams final report included recommendations, as requested, but also presented favorable findings. Sample selection was based upon the American Institute of Certified Public Accountants (AICPA) Audit Sampling Guide for an expected 1.75% error rate, a 90% confidence level and a 5% tolerable deviation rate. This error rate of 1.75% and the 90% confidence level allows for two errors within the sample set. During their testing and review

process, Moss Adams found one error in the rebate amount and therefore the 90% confidence was achieved related to the dollar amount of the rebates. Even though Moss Adams was following generally accepted audit sampling standards, they increased the sample size to make the sample more representative of the population distribution. It is important to note that while Moss Adams identified the DSM rebate processing as extremely manual, the processes in place were deemed effective in that the Company is achieving less than the expected error rate. With a sample size of 105 processed rebates, only one error was identified. This single error extrapolates to 366 representative errors from the more than 38,000 rebates processed, or an error rate of 0.96%. The value of the error was \$14.64 and through extrapolation represents less than \$5,400 out of the \$17.8 million provided in rebates, or an error rate of 0.03%.

The Moss Adams review provided specific findings and recommendations within the structures of Internal Controls, Non-residential Testing, Residential Testing, Low Income Testing and Cut-off Testing. These findings and recommendations were addressed throughout 2011 with numerous improvements and additional checks and balances implemented to ensure accuracy and sufficient controls as noted above. The automation efforts mentioned above will reduce the manual nature which was an identified area of improvement.

# VII. Analytical Review of 2012 Operations

Fundamentally the analytical review of planned 2012 DSM operations is based upon a compilation of measure characteristics that build towards calculating measure, program and portfolio cost-effectiveness and acquisition levels. This analysis is augmented with the costs associated with infrastructure (labor and non-labor) and EM&V requirements to build an overall budget. This fundamental analysis generally iterates several times as program managers refine programs to optimize program and portfolio performance.

Delays associated with the finalization of modified CPA results reduced the amount of time available for the iterative optimization of the portfolio. This activity will take place as part of the ongoing business planning effort.

To the extent that the portfolio optimization will continue to be analyzed, the outlook presented within this document may be conservative to some degree. However, the major issues, programs, and expected results identified within this document and incorporated within the management recommendations for 2012 are unlikely to be materially different.

## **Avista-Specific DSM Methodologies and Practices**

Avista has developed a variety of utility-specific methodologies and variations that build upon industry-standard methodologies and improve the value of the analysis within the business planning process. Generally these have become necessary to deal with unique components to Avista's DSM portfolio or to be responsive to regulatory or external stakeholder requirements. Additionally the Company has established an approach to the aggregation and nomenclature of our portfolio that plays a role in understanding our approach to the planning process.

This section outlines several of these definitional and methodological approaches with the intent to improving the clarity and transparency of the 2012 DSM Business Plan.

#### Sub-Measures, Measures, Programs and Portfolios

The terminology of the various levels of aggregation of Avista's DSM portfolio is key to understanding the approach that has taken to the business planning and portfolio optimization process. It is of additional importance in recognition of the Company's commitment to offer only those measures that are cost-effective as memorialized in the IPUC Staff Memorandum of Understanding and similar commitments to Washington stakeholders.

The Company has established the following definitions:

Sub-Measure: A sub-measure is a component of a measure that is difficult to offer, in an understandable and marketable way, without aggregating it with other sub-measures. An example would be the difficulty that would occur in offering two-pan fryers and four-pan fryers without also offering three-pan fryers. Avista may offer sub-measures that do not achieve normal cost-effectiveness criteria if the overall measure is cost-effective.

Measure: Measures are stand-alone efficiency options that are reasonably independent of other measures within the portfolio. Consequently measures are expected to pass cost-effectiveness criteria barring exceptions. Exceptions include, but are not necessarily limited to, measures with unquantified market transformation effects, other non-energy benefits beyond the ability of Avista to quantify and cooperation participation in regional programs.

Programs: Programs consist of one or more related measures. The relation among the measures may be based upon technology (e.g. an aggregation of efficient lighting technologies) or market segment (e.g. aggregation of efficient food service measures). The aggregation is generally performed to improve the marketability or management of the measures.

Portfolio: Portfolios are composed of aggregations of programs. The aggregating factor will vary based upon the definition of the portfolio. The following portfolios have been defined:

Market segment portfolio: An aggregation of programs within a market segment (e.g. low-income, residential, non-residential, regional).

Fuel portfolio: Aggregating of electric or natural gas DSM programs.

Regular vs. low income portfolios: Separating the income qualified elements of the portfolio from those elements of the portfolio that are not income qualified.

Jurisdictional portfolio: Aggregating programs within either the Washington or Idaho jurisdiction.

Local or Regional portfolio: Aggregating all elements of the local DSM portfolio vs. the regional market transformation portfolio.

Fuel/Jurisdictional portfolio: Aggregating all programs within a given fuel and jurisdiction (Washington electric, Washington natural gas, Idaho electric, Idaho natural gas).

Overall portfolio: Aggregating all aspects of the Washington and Idaho, electric and natural gas DSM portfolio.

#### Methodology for Allocation of DSM Costs

The DSM portfolio is managed for several objectives, one of which is the maximization of net portfolio TRC benefits. Though this objective is not absolute and does occasionally conflict with other objectives, it is important to establish a methodology for allocating costs that is consistent with achieving that goal.

The Avista methodology for cost-allocation builds from the bottom (measure-level analysis) up to the program and ultimately portfolio analysis. At each level of aggregation those costs that are incremental at that stage of aggregation are incorporated into the cost-effectiveness analysis. Incremental customer cost (which is the vast majority of TRC cost) and benefits are fully incorporated into measure-level analysis. Utility costs may be recognized at the measure, program or portfolio level of aggregation depending on what stage of aggregation those costs are determined to be incremental. For PACT analysis, incentives are always incorporated into the measure-level analysis.

Though absolutely all costs are ultimately incorporated into the cost-effectiveness, whether the costs are recognized at the measure, program or portfolio level can be more subjective. The following are a few illustrations of how the methodology might be applied within the business planning process:

- For a residential measure offered through a third-party contractor (e.g. refrigerator recycling, CFL distributions etc.) the cost of the third-party administration would be considered to be a utility non-incentive cost. Since this is a cost that wouldn't be borne in the absence of this individual measure, it would be considered to be an incremental cost at the measure level.
- The utility labor associated with a commercial prescriptive lighting program may be considered an incremental cost only at the portfolio level (and not at the measure or program level) if the addition of the program would not impose additional utility labor costs during the business plan period (calendar year 2012).
- An outreach program designed to exclusively enhance throughput of a residential lighting program would be considered an incremental cost at the program level (but not the measure level). However, a general outreach program covering multiple programs would only be considered an incremental cost at the portfolio level.

The level at which these costs are realized have important consequences to building a portfolio that maximizes net TRC value. It is possible that measures that improve the net TRC value of the portfolio could be inappropriately excluded from the portfolio if they are forced to bear costs that are truly fixed at that level of aggregation. By carefully structuring the level of aggregation that these costs are realized it is possible to include measures (or programs) that contribute to the overall portfolio even if those programs are not sufficiently cost-effective to offset the fixed costs that they may be allocated.

#### Sub-TRC and Sub-PACT Cost-Effectiveness Tests

These modifications to traditional utility standard practice tests are an outgrowth of the cost allocations discussed above and the objective of maximizing portfolio net TRC cost-effectiveness. The sub-TRC and sub-PACT test is a measurement of the TRC tests based only upon the costs and benefits that are incremental to a measure, program or portfolio at that level of aggregation. By evaluating the sub-TRC and sub-PACT tests on a measure-by-measure and

program-by-program basis it is possible to determine if that individual measure or program contributes to the net cost-effectiveness of the overall portfolio.

# Net-to-Gross Adjustments

Avista reports cost-effectiveness based upon both net participation (those who would not have adopted the measure in the absence of the utility program) and a gross basis (based upon all program participants). It is our objective to offer measures that are cost-effective from a net sub-TRC test perspective, although for many purposes (including Washington I-937 compliance) we report gross acquisition.

To modify the TRC and PACT calculations from a gross to a net basis, the Company excludes the impact (both costs and benefits) of all non-net participants (those who would have adopted the measure in the absence of the program). Utility costs, including incentive costs within the PACT calculation, are not modified.

Fundamentally, the net calculations only allow for the utility costs to be distributed across those who were motivated to adopt the measure by the program instead of all program participants.

The difference between the net and gross TRC cost-effectiveness calculations is minimal when the customer incremental cost is a fairly high percentage of the total TRC cost (composed of both customer incremental cost and utility non-incentive cost). For many years Avista's DSM strategy was based primarily upon utilizing incentives to drive participation. Under those circumstances the gap between net and gross cost-effectiveness was relatively small. Since approximately 2007 the Company has gradually shifted towards making greater use of outreach efforts, partnerships and infrastructure investments to drive increased throughput of cost-effective measures. These additional costs, in addition to higher EM&V and other costs have significantly increased the percentage of utility costs that are non-incentive in nature. The outreach and infrastructure investments have been successful in that there has been a substantial increase in throughput during that period of time, but they have also increased the proportion of utility non-incentive costs within the total TRC cost and contributed towards a greater gap between net and gross TRC cost-effectiveness.

Though the incentive cost in proportion to the overall utility cost has always been calculated as an important metric, it has become progressively more critical to the management of the DSM portfolio as the gap between net and gross TRC calculations has grown. As a consequence there has been greater ongoing review of the efficacy of fixed non-incentive utility investments.

Until 2011 the Company applied a sensitivity analysis to the annual calculation of portfolio TRC cost-effectiveness for the prior year as well as part of the forward looking planning process for individual programs and measures. Net TRCs were generally calculated based upon the assumption that 100%, 75%, 50% and 25% of participating customers met the criteria for being a "net" customer. As the gaps within this sensitivity analysis have grown the need for a formal net-to-gross study was identified by both Avista and external stakeholders. In 2011 the Company contracted with Cadmus to complete a net-to-gross study for application to the cost-effectiveness analysis and to provide additional information for the program management. The

net-to-gross ratios from the Cadmus study have been incorporated into the net TRC cost-effectiveness analysis within this document, with the addition of a few updates obtained as part of subsequent process evaluations.

#### Treatment of State and Federal Tax Credits

The Company has historically used the California Standard Practice Manual definition of the TRC test. This definition of the test allows for the customer incremental cost to be offset by tax credits (essentially viewing those credits as coming from outside the utility ratepayer population). Within the societal test perspective, these same tax credits are treated as transfer payments and do not offset customer incremental cost.

In response to requests from external stakeholders, the Company also calculates a variant of the TRC test that excludes tax credits as offsets to customer incremental cost.

Until recent years this has been of relatively little importance. However, between 2009 and 2010 these tax credits were sufficiently large to have a significant impact upon program and portfolio TRC costs. The tax credits available in 2012 are much smaller. There is also uncertainty surrounding assumptions of whether customers qualify for and apply for these tax credits. Consequently tax credits have not been applied to reducing the customer incremental cost of measures within the 2012 business planning process.

#### **Analytical Review of Measures and Programs**

The annual DSM business planning exercise is based upon a comprehensive review of the opportunities in the following year without any assumed regulatory or budgetary constraints. As the portfolio is built it is possible to identify barriers to the development of an optimal portfolio. These barriers then become potential points of discussion as part of the business planning process and in the dialogue with Avista's external stakeholders

A bottom-up approach is used starting with the assessment of individual measures. Those measures that demonstrate themselves to be cost-effective are built into programs and those programs aggregated into portfolios.

In past years measure-level information on energy savings, customer incremental cost, non-energy impacts and measure life was derived from internal Avista engineering estimates. Based upon a request from the Avista Advisory Group, the 2012 DSM Business Plan was delayed to allow for the completion of a revised external electric CPA by Global Consulting including assumptions regarding natural adoption consistent with the Northwest Power and Conservation Council Sixth Power Plan. Though Avista agreed to utilize this as a starting point for the 2012 DSM Business Plan, it was also agreed that the program management staff would have the opportunity to modify these assumptions to more accurately represent the programs that would be offered in conformance with the need for the business plan to serve as an operational planning tool.

It was rapidly discovered that the methodologies commonly employed within CPA assessments of aggregate cost-effective potential are ill-suited for application within an operational business plan. The disaggregation of markets for individual measures by jurisdiction, segment, building type, vintage and so on resulted in a proliferation of measure applications. It was common to find a single measure subdivided into 12 or 16 (or more) applications. If any single one of these applications was cost-effective, that acquisition potential became part of the aggregate acquisition target. Although this can be a useful approach to building an aggregate acquisition target for IRP planning purposes, it does not recognize the need to package measures into marketable programs nor does it incorporate the costs of utility infrastructure (labor, EM&V and administrative costs) necessary to field a viable energy-efficiency program.

As a consequence the program management staff frequently modified the results of the CPA, though these modified inputs generally continued to represent the assumptions implicit within the CPA, the Avista TRM, recent impact analysis and related work.

The commitment to utilize the CPA in the earliest stages of the analysis resulted in an unexpectedly long delay in the initiation of the DSM Business Plan analysis. This, in combination with fixed regulatory deadlines, prevented the degree of iterative optimization that has normally occurred as part of the planning process. As a consequence this business plan is concluding with recommendations for additional review of measures and programs that would have normally been completed as part of the business plan itself. Significant revisions within the portfolio that are beyond those noted within this document will be identified and disclosed to the Avista Advisory Group.

Since the natural gas CPA contracted to Global Consulting remains in-progress, natural gas measure energy savings were drawn from other sources, primarily the TRM and previous external impact evaluations. Internal Avista data on customer incremental cost and quantifiable non-energy impacts were the most frequently used basis for the estimation of customer incremental cost and non-energy impacts, as these were not commonly available though other sources.

Despite the substantial modifications to the Global CPA results, the 2012 DSM Business Plan has maintained the tradition of being built almost entirely upon a measure and program-level analytical foundation.

The DSM Business Plan evaluates the sub-TRC cost-effectiveness of measures, programs and portfolios based upon those costs that were incremental at that level of aggregation. Measure-level analysis is generally defined as the customer incremental cost and any non-incentive utility cost specific to that measure. Feedback from the Avista Advisory Group on the 2011 DSM Business Plan resulted in a revision, after the original Plan was filed, to include the allocation of labor to the measure level. This is essentially assuming that the DSM staff would expand or contract in response to the addition or termination of individual measures. In anticipation of a similar request for 2012, labor was once again allocated down to the measure level and included as a sub-TRC cost. As a consequence, measure level sub-TRCs were lower than they those which would have been observed using the original 2011 methodology.

The process did not allocate the EM&V cost at the measure or program level. EM&V costs, which have become considerable, were allocated exclusively at the portfolio level. This decision was based upon the uncertainty of the methodology that would be employed for assessing the 2012 portfolio. It was not deemed possible to determine the incremental cost attributable to measures or programs in the absence of knowledge of methodologies regarding program aggregation, sampling strategies, process evaluation requirements and other details. Since an RFP for the independent third-party evaluation of the 2012 portfolio has yet to be written it is difficult to speculate upon the methodology that is likely to be selected. Inclusion of this additional cost burden could materially impact the sub-TRC cost-effectiveness and potentially exclude otherwise cost-effective measures from inclusion within the portfolio.

Two lessons that are now clear from the 2012 DSM business planning process that are worthy of noting for future reference include:

- 1. It is necessary to base the process upon operationally meaningful inputs at even the most detailed levels within the portfolio. Though the CPA methodology is functional as a planning tool for establishing aggregate service-territory level efficiency potential, there are several important misalignments in the definition and segmentation of measures, measure applications and markets that render this approach unsuitable for an operational business plan.
- 2. There is a need for a discussion and agreement regarding the allocation of costs at different levels of aggregation within the DSM portfolio. The degree to which costs are incremental and can be accurately defined has been touched upon in the review of the business plan by the Avista Advisory Group in the past, but a clear discussion and conclusion is necessary to guide future planning efforts.

# **Resource Acquisition Targets**

A key requirement of the business planning process is the projection of resource acquisition during the upcoming year. Resource acquisition projections are divided into electric and natural gas as well as Washington and Idaho distinctions.

The projected resource acquisitions are compared to targets established within the previous IRP (electric and natural gas) as well as Washington 2012-2013 Biennial Conservation Plan (BCP) targets and Washington natural gas decoupling targets.

It is recognized that the Company's core acquisition obligation remains the responsible pursuit of all cost-effective resources and not merely meeting a numerical target. Though the management of the portfolio does tend to focus upon increasing acquisition where there is a shortfall relative to these targets, or to mitigate the adverse impact of the shortfall, this fundamental obligation remains a part of the ongoing management of the DSM portfolio.

#### Washington I-937 Requirements

The 2012 DSM Business Plan incorporates the first year of Avista's 2012-2013 I-937 compliance period. Avista will be filing with the WUTC the resource acquisition target for the

2012-2013 biennium on the same day that this business plan is to be filed. At the time that the analysis behind the business plan was in progress the acquisition level for Avista's BCP filing had been established based upon the results of a 2011 CPA. The lower limit of this range has been determined to be the 'realistic achievable potential' (RAP) and the upper limit is the 'maximum achievable potential' (MAP). Failing to achieve the lower boundary of this range will result in the assessment of a \$50 per mWh penalty upon the utility. Exceeding the high end of the range as a result of measures where pre-acquisition is possible (which has been proposed to exclude only new construction measure applications) results in a modification to the target in the following (2014-2015) biennium.

For purposes of the 2012-2013 biennium, only measurable Washington electric-efficiency acquisition is incorporated into the target and eligible for meeting that target. Fuel-efficiency (the cost-effective displacement of electric end-use consumption with the direct use of natural gas) is excluded from these calculations. Despite the exclusion from the I-937 acquisition calculations, the Company remains committed to fuel-efficiency programs and they will remain within the Company's electric DSM portfolio.

The I-937 requirements pertain not only to electric efficiency but distribution efficiencies and improvements in unmetered electric consumption within thermal generating plants as well. These other efficiencies are outside the scope of the 2012 DSM Business Plan and are not incorporated within this business plan. Despite their exclusion from DSM business planning, Avista's BCP filing defines the BCP target is a single aggregate target. Interdepartmental coordination necessary to meet this target will become a greater focus within the 2013 DSM business planning process based upon a review of results achieved within the biennium to date.

There have been no changes in the market or the general economy in the very short period of time since the electric CPA has been completed. Since that CPA is the foundation of the BCP target, there was not expected to be a significant mismatch between this acquisition target and the 2012 DSM Business Plan acquisition projections. As indicated in greater depth on table 6, the Company anticipates an acquisition level in the upper 64% of that range during 2012.

Though this document is not intended to project beyond 2012, the biennial nature of the BCP target does necessarily create the need for some projection to 2013. As with the Northwest Power and Conservation Council's 6<sup>th</sup> Power Plan, Avista's CPA projects a significant ramp-up in cost-effective potential in 2013 in comparison to 2012 (as indicated in table 7):

The identification of cost-effective potential within a CPA is reached without consideration of the ability of the utility to execute such a ramp-up without undue escalations in cost. Rapid ramp-ups can result in undue escalations in utility cost as well as increasing customer incremental costs for efficiency measures. The result can lead to higher costs and set-backs in the development of markets for efficiency measures. Consequently it is important to consider not only the sufficiency of the 2012 acquisition relative to the 2012 targets, but also whether the consequences that the 2012 achievements have upon 2013 acquisition needs.

For those reasons Avista has incorporated a projection of acquisition levels over the full 2012-2013 biennium under various ramp-up assumptions in comparison to the full 2012-2013 BCP

acquisition target. At present it does not appear that a ramp-up of such a magnitude as to create cost-escalation issues will be necessary to meet the BCP acquisition target.

The Washington I-937 compliance requirements are not limited to acquisition targets. Additional reporting requirements and EM&V requirements are outlined in this document and the 2012 EM&V Plan is attached as Appendix B

## Washington Natural Gas Requirements

Avista's current natural gas fixed cost recovery mechanism includes a tiered trigger based upon independently third-party verified Washington natural gas DSM acquisition. The tier structure (below) requires a minimum resource acquisition of 70% for any fixed cost recovery.

<u>Table 2</u>: Natural gas decoupling mechanism DSM tiered trigger structure

Actual vs. target DSM savings	% of tracked cost recovery
Less than 70%	0%
$\geq 70\%$ and $< 80\%$	15%
$\geq 80\%$ and $< 90\%$	25%
$\geq$ 90% and $<$ 100%	35%
> 100%	45%

For reasons elaborated upon later within this document, this business plan is projecting that 2012 acquisition will fall short of the 70% minimum established to qualify for any tracked lost fixed cost recovery.

#### **Resource Acquisition Projections**

Once the process of identifying and characterizing measures and their aggregation into programs and portfolios has been completed, it is possible to begin to assess the overall portfolio resource acquisition projections.

As previously indicated, the time available for the planning process was compressed to the point that there was less opportunity for the iterative optimization of the overall portfolio that normally occurs. As a consequence the portfolio acquisition projections, at of the date of this document, include contributions from programs that have been identified within this plan as sub-TRC cost-ineffective. There are also measures identified within the Global Consulting electric CPA as cost-effective that remain under review for possible future inclusion within the portfolio. Generally it is possible to simultaneously improve the acquisition levels and cost-effectiveness of the portfolio through this iterative optimization process. Thus some degree of improvement would be expected after the date of filing of this document. Avista will report to the Advisory Group progress in this task.

The review of Avista's acquisition relative to established targets has led to the realization that there are three factors that play a significant role in the Company's ability to hit these targets. These three key factors are:

#### Federal Tax Credits

The availability of significant federal tax credits, primarily for residential appliances and selected residential home improvements, added considerable fuel to an already growing residential efficiency portfolio during 2009 and 2010. After that point the credits were phased out but generally not terminated. Since customers were uncertain as to when the credits would terminate most customers took action early during this availability period, contributing towards the increased residential throughput in 2009 and 2010.

The accelerated replacement of end-use equipment carries with it substantial advantages. Given the luxury of time, which is often not the case in replace on burnout applications, replacement of appliances with high-efficiency equipment is a more viable customer option.

It is also generally true that such acceleration generally depletes the technical and economic potential in subsequent time periods to some degree. In the case of the federal tax credits initiated during 2009, some of the accelerated acquisition came at the expense of 2011 and 2012 acquisition. The impact of this acceleration is being observed in Avista's 2011 year-to-date rebate activity, which is down by approximately 25% from the prior year. This decrease seems to be accelerating and Avista is projecting another decrease of approximately 25% in 2012 throughput.

#### Macroeconomic Issues

The general economic climate (locally, regionally and nationally) presents a clear challenge to driving customers to voluntarily invest scarce capital funds in efficiency investments. Uncertainty in the economic future induces reduced capital investment, increased risk aversion and higher hurdle rates for those investments. This is applicable to residential, commercial and industrial market segments.

Within this environment it is more difficult to successfully market efficiency investments given the reduced opportunities available and the higher returns demanded by customers.

It is also notable that the general economy is one of several influences upon the avoided cost of energy; reduced demand leads to lower avoided costs. This is one of several factors leading to declines in avoided cost that have played a significant role in the prospect for cost-effective energy efficiency acquisition in 2012 and beyond.

#### Establishment of the Acquisition Target

Avista's electric acquisition targets within the 2011 IRP target as well as the Washington BCP target range are based upon a recently completed CPA. Given the timeliness of the current CPA there has been little opportunity for assumptions to change prior to the initiation of this business planning process. Therefore, and not without surprise, the business plan has led to results that are very similar to those contained within the CPA and incorporated into those acquisition targets.

The same is not true of the natural gas acquisition targets. Those targets were developed for the 2009 natural gas IRP and have not been updated. Since that time federal tax credits have come and gradually declined, and general economic conditions have significantly eroded. As a consequence the acquisition targets established based upon what now appear to be optimistic assumptions are unrealistic based upon current expectations of the 2012 market. An external natural gas CPA is now underway and due for completion during 2012 for incorporation into the IRP for that year, but that process will only establish targets for 2013 and beyond.

Beyond the timeliness of the assumptions used to develop the natural gas targets, it is also important to recognize that the targets were developed without the benefit of most of the recent EM&V that has been performed on the gas portfolio. The use of higher unverified acquisition estimates to develop the target is inconsistent with the lower energy savings assumed within the 2012 DSM Business Plan.

A summary of electric and natural gas acquisition by program is detailed in table 3 below.

<u>Table 3</u>: Electric and natural gas acquisition for non-residential programs

Portfolio	Program	Washington kWhs	Idaho kWhs	Washington therms	Idaho therms	System kWhs	System therms
Non-res	Site Specific	17,500,000	7,500,000	437,500	187,500	25,000,000	625,000
Non-res	Psc Energy Smart Grocer	2,698,205	1,156,373	-	-	3,854,578	-
Non-res	Psc Green Motors	25,089	10,752	-	-	35,841	-
Non-res	Psc PC Network Controls	45,780	19,620	-	-	65,400	-
Non-res	Psc Clothes Washers	24,657	10,567	2,058	882	35,224	2,940
Non-res	Psc Food Service	329,566	141,242	18,273	7,831	470,808	26,104
Non-res	Psc Lighting	10,500,000	4,500,000	-	-	15,000,000	-
Non-res	Psc Motors	589,418	252,608	-	-	842,025	-
Non-res	Psc VFDs	1,746,780	748,620	-	-	2,495,400	-
Non-res	Psc Windows/insulation	117,572	50,388	19,474	8,346	167,960	27,820
Non-res	Psc HVAC	-	-	22,523	9,653	-	32,175
Non-res	Psc standby gen block htr	63,490	27,210	-	-	90,700	-
Non-res	RCM			-	-	-	-
Non-residential total		33,640,555	33,640,555	33,640,555	33,640,555	33,640,555	33,640,555

<u>Table 4</u>: Electric and natural gas acquisition for residential programs

Portfolio	Program	Washington kWhs	Idaho kWhs	Washington therms	Idaho therms	System kWhs	System therms
Res home improvement	AS heat pump	424,320	181,851	-	-	606,171	-
Res home improvement	Ductless heat pump	24,200	10,372	-	-	34,572	-
Res home improvement	VSM	385,924	165,396	-	-	551,320	-
Res home improvement	Water heater	98,999	42,428	3,302	1,415	141,427	4,717
Res home improvement	E to NG furnaces	636,208	272,660	-	-	908,868	-
Res home improvement	E to AS heat pump	223,021	95,581	-	-	318,602	-
Res home improvement	E to NG water heat	193,721	83,023	-	-	276,744	-
Res home improvement	Insulation	446,383	191,307	99,460	42,626	637,690	142,085
Res home improvement	Fireplace damper	342	147	47	20	489	67
Res home improvement	NG furnace	-	-	178,063	76,313	-	254,376
Res home improvement	In home energy audit	75,600	-	-	-	75,600	-
Res home improvement	Res lighting	2,100,000	900,000	-	-	3,000,000	-
Res home improvement	Event CFL distributions	105,000	45,000	-	-	150,000	-
Res new construction	AS heat pump	463	198	-	-	661	-
Res new construction	Ductless heat pump	-	-	-	-	-	-
Res new construction	VSM	3,377	1,447	-	-	4,825	-
Res new construction	Water heaters	-	-	22	9	-	31
Res new construction	NG furnace	-	-	8,711	3,733	-	12,444
Res new construction	Energy Star homes	190,712	81,734	17,238	7,388	272,445	24,625
Res new construction	Res multifamily MT	443,518	190,079	-	-	633,597	-
Res appliances	Clothes washer	93,297	39,984	12,062	5,170	133,281	17,232
Res appliances	Refrigerator/Freezer	119,524	51,224	-	-	170,748	-
Res appliances	JACO	1,693,825	725,925	-	-	2,419,750	-
Low income	Low income	1,404,520	491,582	35,032	12,261	1,896,101	47,294
Residential total		8,662,953	8,662,953	8,662,953	8,662,953	8,662,953	8,662,953
Local portfolio total		42,303,508	42,303,508	42,303,508	42,303,508	42,303,508	42,303,508

# **Electric DSM Acquisition**

Based upon the final projections available for this business plan the electric acquisition is projected to be on target to achieve IRP targets established within each jurisdiction as well as being within the 2012 acquisition range established within the BCP. Additionally the 2012 acquisition appears to place the Company on a reasonable path towards meeting 2012-2013 BCP targets.

The following tables indicate projected acquisition relative to those targets, including sensitivity analysis surrounding projections of 2012-2013 acquisition.

<u>Table 5</u>: Electric DSM acquisition relative to IRP targets by jurisdiction

	2012 IRP target	2012 projected acquisition	
<b>Jurisdiction</b>	$(mWhs)^1$	$\frac{(\text{mWhs})^2}{2}$	% of target
Washington	32,762	49,662	152%
Idaho	17,082	21,141	124%
System	49,844	70,803	142%

- 1. IRP targets and comparable acquisitions include fuel-efficiency measures and exclude distribution efficiency and efficiency within thermal electric generation facilities.
- 2. Acquisition includes electric-efficiency, fuel-efficiency and NEEA regional electric-efficiency attributed to Avista.

It should be noted that, after the completion of the IRP, subsequent analyses were completed. One in particular, electric to natural gas conversions, were considered to be underestimated. The revised estimate started with current participation rates and ramped up from there. Another subsequent adjustment was the removal of the effects of naturally occurring conservation in order to provide consistency with the Council's Sixth Plan. The CPA, with these revisions, completed for purposes of establishing a BCP goal is a more current and, subjectively, more reasonable acquisition target for Washington. No such comparable revised acquisition target is available for Idaho.

<u>Table 6</u>: Washington acquisition qualifying towards BCP targets relative to the 2012 target range

	2012 WA DSM	2012 WA DSM	2012 WA DSM	Placement
	BCP RAP <sup>1</sup> target	BCP MAP <sup>2</sup> target	projected acquisition	within
<u>Category</u>	(mWhs)	(mWhs)	% of target	<u>range<sup>3</sup></u>
Electric efficiency	34,041 <sup>4</sup>	56,584 <sup>4</sup>	$41,030^{5}$	64%
Distribution efficiency	32,387	60,147	$NA^6$	NA
EE in thermal generation	0	0	NA	NA

- 1. "RAP" is the realistic acquisition potential as defined within the Global Consulting CPA study. This establishes the lower boundary of the range for the 2012-2013 BCP.
- 2. "MAP" is the maximum acquisition potential as defined within the Global Consulting CPA study. This establishes the upper boundary of the range for the 2012-2013 BCP.
- 3. Does not include fuel-efficiency measures.
- 4. Describing how far the projected acquisition level is up from the lower boundary of the range towards the higher boundary of the range. Less than 0% would indicate short of the lower boundary and above 100% would indicate above the higher boundary.
- 5. Excluding fuel-efficiency acquisition.
- 6. Not contained within the 2012 DSM Business Plan.

<u>Table 7</u>: Washington acquisition qualifying towards BCP targets relative to the 2012-2013 target range

					Placement
			Low ramp	High ramp	within
	$\underline{RAP}^1$	$MAP^2$	assumption <sup>3</sup>	assumption <sup>4</sup>	<u>range<sup>5</sup></u>
2012 target	34,041	56,584	48,388	48,388	64%
2013 target	42,161	80,826	48,388	60,486	16% - 47%
2012-2013 tgt.	76,202	137,410	96,777	108,874	34% - 53%
2012-2013 ramp rate	24%	43%	0%	25%	

- 1. "RAP" is the realistic acquisition potential as defined within the Global Consulting CPA study. This establishes the lower boundary of the range for the 2012-2013 BCP.
- 2. "MAP" is the maximum acquisition potential as defined within the Global Consulting CPA study. This establishes the upper boundary of the range for the 2012-2013 BCP.
- 3. Assumes the same level of acquisition in 2013 as is projected for 2012.
- 4. Assumes a 25% increase in acquisition between 2012 and 2013
- 5. Describing how far the projected acquisition level is up from the lower boundary of the range towards the higher boundary of the range. Less than 0% would indicate short of the lower boundary and above 100% would indicate above the higher boundary.

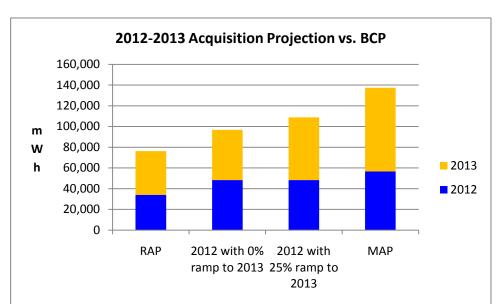


Figure 1: "RAP" and "MAP" ranges and 2012-2013 acquisition with two ramping assumptions

Acquisition projections are based upon the acquisition that is anticipated to be verified by independent third party impact evaluations at the close of the 2012-2013 BCP period. Measure level savings estimates are based upon the CPA, Avista's TRM, or in the absence of this guidance, the best available information.

It is also projected that any 2013 ramp-up of acquisition necessary to meet the biennial target is unlikely to be so substantial as to cause undue increases in utility or customer costs.

The distribution of energy acquisition by program is contained within figure 2 (below). This allocation illustrates the expectation of a reduction in residential acquisition as a result of the diminished availability of federal tax credits.

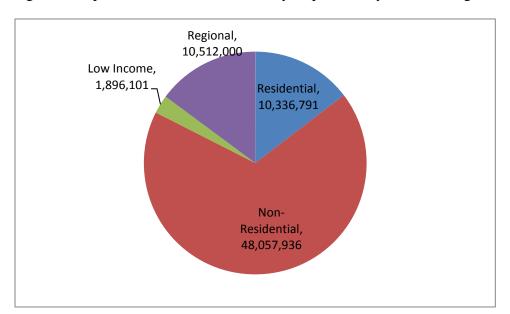


Figure 2: Expected 2012 electric efficiency acquisition by customer segment

Based upon the analysis within the business planning process and reflected in the tables above, Avista anticipates being within expected guidelines for electric DSM acquisition. Despite the projection that the Company will meet this target without the need for further management of the portfolio, the Company will continue to evaluate opportunities to cost-effectively improve acquisition levels and appropriately accelerate adoption throughout 2012.

#### Natural Gas Acquisition

The prospects for achieving acquisition targets established in the 2009 natural gas IRP and contained within the Washington natural gas fixed cost recovery mechanism are more problematic than those outlined above for the electric portfolio. There assumptions used to establish those targets are much less timely and representative of current markets. The impact of federal tax credits and general economic conditions has had a more detrimental impact upon the natural gas measures, and those impacts are reflected in the 2012 acquisition projections.

Based upon the measures and programs incorporated within the portfolio as of the completion of this business plan the following acquisition levels relative to 2009 IRP acquisition targets are expected.

<u>Table 8</u>: Natural gas DSM acquisition relative to IRP targets by jurisdiction

	Acquisition target	Acquisition projection	Performance
<u>Jurisdiction</u>	(therms) <sup>1</sup>	(therms)	vs. target
Idaho	697,135	363,146	52%
Washington	1,739,311	853,764	49%
System	2,436,446	1,216,910	50%

1. Derived from the 2009 natural gas IRP.

The Washington acquisition relative to the 2012 target fails to achieve the 70% level that is necessary to allow for any recovery of decoupling tracked fixed cost recovery.

These projections are clearly disappointments not only in comparison to the 2009 IRP expectations (which are not entirely relevant to current conditions) but also when viewed relative to 2010 unverified actual acquisition claims and 2011 budgeted acquisition. The projections indicate an ongoing slide in the ability to achieve natural gas acquisition targets. It should be recognized that this slide is occurring after an unprecedented growth in natural gas efficiency activity that began in 2002. When viewed in a longer historical perspective the acquisition projections may be viewed as less surprising.

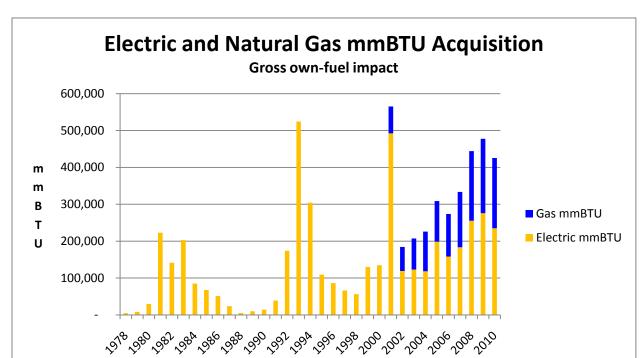


Figure 3: Historical electric and natural gas acquisition

- 1. The "own-fuel" impact is defined as the electric impact of electric DSM and fuel-efficiency programs and the natural gas impact of natural gas DSM programs. Interactive effects upon other fuels or the natural gas usage of fuel-efficiency programs are not included in these calculations.
- 2. Avista conducted natural gas programs during 1995 to 1997, but those records were unavailable for inclusion in this graph.

The distribution of natural gas acquisition by customer segment is represented below.

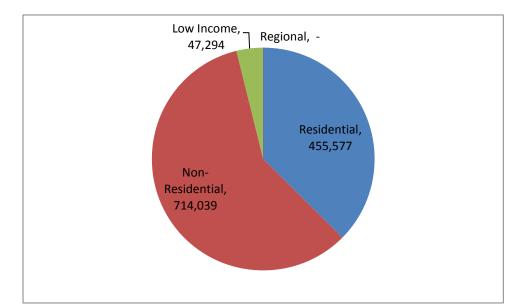


Figure 4: Expected 2012 natural gas efficiency acquisition by customer segment

# **Cost-Effectiveness Projections**

Portfolio acquisition and cost-effectiveness projections are closely related. The screening of measures and programs to exclude those that are not anticipated to be cost-effective on a net TRC basis (absent reasonable exceptions) clearly have an influence upon acquisition. Shifting cost-effectiveness is most frequently the result of changing technologies, the cost of those technologies, avoided costs, measure life and energy savings.

Avista calculates four standard practice tests as part of the DSM Annual Report; total resource cost, program administrator (or utility cost) test, participant test and non-participant (or rate impact measure) test. For planning purposes the greatest focus is upon the TRC test. With very few exceptions the TRC test is more difficult to pass than the program administrator cost test. The primary use of the participant test is to determine if a measure is likely to generate sufficient customer interest (due to the use of a customer simple payback measure within the Company's formulaic tariffed incentive guidance, this measure is often used as a substitute metric). Avista has long sought to address the non-participant test by offering broadly applicable programs that allow all customers with the opportunity to benefit, directly or indirectly.

In the past the TRC test has included two scenarios; (1) with and without the inclusion of tax credits as offsets to customer incremental cost and (2) based upon various net-to-gross ratio scenarios. As previously explained, no offsets to customer incremental cost resulting from tax credits have been incorporated into the 2012 DSM Business Plan due to the reduced availability and uncertainty regarding customer receipt of the credit.

The Company has historically evaluated the DSM portfolio based upon varying levels of net-to-gross scenarios. With the compilation of the 2011 Cadmus net-to-gross study it is possible to substitute those estimates into the net cost-effectiveness calculations.

The description of the Company's sub-TRC analysis (analysis of only those costs and benefits that are incremental at a given level of program aggregation) is summarized in Table 9. A total of 77% of labor expenses are allocated to individual DSM programs with the remainder being related to EM&V, regulatory and regional functions. All utility costs are incorporated within the portfolio cost-effectiveness.

<u>Table 9</u>: TRC cost-effectiveness by measure

Program	Measure package	Overall portfolio gross sub-TRC w/o NIUC	Overall portfolio gross sub-TRC w NIUC	Overall portfolio net sub-TRC w NIUC
Non-res	Site-specific	1.01	0.97	0.95
Non-res	Psc Energy Smart Grocer	2.22	2.05	2.03
Non-res	Psc Green Motors	1.64	1.49	1.41
Non-res	Psc PC Network Controls	1.41	1.15	1.12
Non-res	Psc Clothes Washers	0.26	0.26	0.26
Non-res	Psc Food Service	1.11	1.02	1.01
Non-res	Psc Lighting	5.33	4.19	4.06
Non-res	Psc Motors	1.31	1.21	1.16
Non-res	Psc VFDs	2.33	2.05	2.01
Non-res	Psc Windows/insulation	2.17	1.85	1.81
Non-res	Psc HVAC	2.22	1.78	1.73
Non-res	Psc standby gen block htr	0.61	0.58	0.58
Non-res	RCM		0.00	0.00
Res home improvement	AS heat pump	0.70	0.68	0.66
Res home improvement	Ductless heat pump	0.96	0.92	0.89
Res home improvement	VSM	0.95	0.91	0.89
Res home improvement	Water heater	2.41	2.07	1.83
Res home improvement	E to NG furnaces	0.96	0.91	0.88
Res home improvement	E to AS heat pump	0.49	0.48	0.47
Res home improvement	E to NG water heat	1.84	1.61	1.44
Res home improvement	Insulation	1.18	1.07	1.01
Res home improvement	Fireplace damper	0.13	0.12	0.12
Res home improvement	NG furnace	0.83	0.74	0.70
Res home improvement	In home energy audit		0.68	0.68
Res home improvement	Res lighting	2.06	1.75	1.60
Res home improvement	Event CFL distributions		11.70	11.70
Res new construction	AS heat pump	0.49	0.48	0.47
Res new construction	Ductless heat pump			
Res new construction	VSM	0.95	0.91	0.89
Res new construction	Water heaters	1.17	1.00	0.89
Res new construction	NG furnace	0.83	0.74	0.70
Res new construction	Energy Star homes	1.01	0.95	0.93
Res new construction	Res multifamily MT	1.71	1.58	1.50
Res appliances	Clothes washer	0.79	0.72	0.62
Res appliances	Refrigerator/Freezer	1.10	1.06	1.03
Res appliances	JACO		3.48	1.81
Low income	Low income	0.70	0.68	0.68

When aggregated into portfolios and with the inclusion of all utility costs, the cost-effectiveness is as represented below in Table 10.

<u>Table 10</u>: Portfolio gross and net TRC projections

Portfolio definition	Gross TRC B/C	Net TRC B/C
Regular income electric portfolio	1.42	1.39
Low income electric portfolio	0.80	0.80
Overall electric portfolio	1.37	1.34
Regular income nat. gas portfolio	0.65	0.63
Low income nat. gas portfolio	0.22	0.22
Overall nat. gas portfolio	0.58	0.54
Regular income electric/nat. gas portfolio	1.20	1.18
Low income electric/nat. gas portfolio	$0.51^{1}$	$0.51^{1}$
Overall electric/nat. gas portfolio	1.14	1.11

1. The TRC benefit to cost ratio is 0.71 without the inclusion of non-incentive costs and with projected realization rates.

The results summarized in the table above lead to two obvious conclusions; (1) the natural gas portfolio is cost-effectiveness challenged and (2) the cost-effectiveness of the low income portfolio is in need of attention. The cost-effectiveness of the electric portfolio is clearly cost-effective, and it is the electric portfolio that brings the overall combined fuel portfolio into a favorable cost-effective range.

The cost-effectiveness of the natural gas portfolio is a persistent and difficult issue. Electric avoided costs are over three times higher (between 309% and 340% depending on the seasonality of the therm usage) than a natural gas measure with the same measure life. This clearly erects a significant barrier to making the natural gas portfolio cost-effective.

It is notable that there have been strong indications that the 2012 natural gas IRP will define an avoided cost that is significantly lower. This would clearly exacerbate the issue of the cost-effectiveness of the natural gas portfolio.

This analysis has identified two issues that may be worthy of discussion within the Avista Advisory Group in 2012; (1) should the natural gas portfolio bear only the costs that are incremental to offering that portfolio in addition to the electric portfolio, or should costs be allocated (either on an mmBTU or avoided cost basis) to both portfolios and (2) a review of the methodology used for allocating non-incentive utility costs to measure, program or portfolio aggregation is necessary. Both of these methodological issues come with an inherent degree of uncertainty.

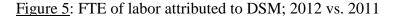
Some degree of sensitivity analysis should be performed prior to this discussion to determine the magnitude of the impact of these alternate directions. Very preliminary evaluation indicates that even the most favorable (in terms of improving portfolio cost-effectiveness) resolutions would

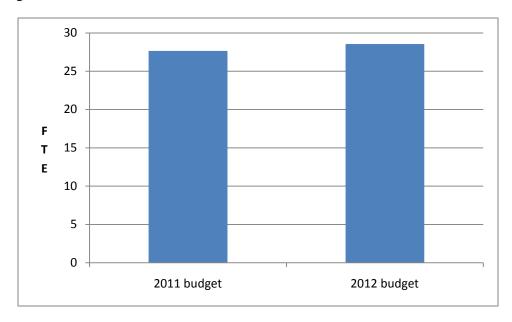
not alone be sufficient to move the natural gas portfolio benefit/cost ratio above one, but in the longer term these may make the difference in positioning Avista to offer a viable and cost-effective portfolio.

# **DSM Labor Requirements**

Labor allocations across the 42 individuals expected to charge to DSM during 2012 were either directly assigned based upon the anticipated duties of those individuals or spread across either residential, non-residential or the entire portfolio based upon the energy savings of the each individual measure. As a consequence, each individual measure that yielded energy savings was required to bear a certain amount of labor cost.

The overall labor allocation for 2012 has increased slightly from a budget of 27.7 FTE in 2011 to 28.6 in 2012 (a 3% increase). The labor budget has decreased by 3% from 2011 in spite of the increase in FTE and an increase in labor overheads from 51% to 60%. This seeming inconsistency is the consequence of a slightly heavier reliance upon lower cost labor classifications (loaded labor cost has decreased by 6% per FTE in comparison to 2011). The cause of increasing FTE during a period of decreasing acquisition is the result rigidities within the implementation task and increasing EM&V activities and regulatory requirements.





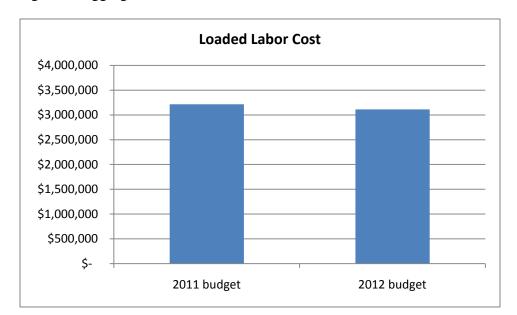


Figure 6: Aggregate DSM loaded labor cost; 2012 vs. 2011

#### **DSM Budget Projections**

Based upon the preceding analysis it is possible to build a total DSM budget projection for 2012 that is consistent with acquisition expectations, projected incentive levels and infrastructure costs. The high-level outcome of these projections is that the expected 2012 DSM expenditures will fall from the 2011 budgeted level of \$28.4 million to \$23.2 million. This is a \$5.2 million reduction, or an amount equal to 18% of the 2011 budget.

Of the total \$5.2 budget reduction, \$4.5 million (86% of the reduction) is attributable to reduced incentive expenditures. The \$4.5 million reduction in the incentive budget represents a 25% reduction in comparison to the 2011 incentive budget. This reduction is driven by an expected 20% decline in electric acquisition and a 39% decline in natural gas acquisition.

The following graph and table illustrate the distribution of the 2012 budget and the comparable 2011 budget.

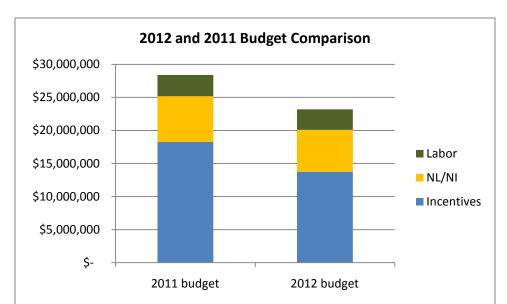


Figure 7: 2012 and 2011 aggregate budget comparison

Table 11 below details the fuel and jurisdictional breakout of the categorized 2012 utility expenditure budget.

Table 11: 2012 budget by expenditure category

	WA electric	ID electric WA gas		ID gas	Total
Incentives	\$ 6,644,389	\$ 2,736,918	\$ 3,093,975	\$ 1,275,667	\$ 13,750,948
Labor	\$ 1,358,674	\$ 579,558	\$ 809,842	\$ 345,892	\$ 3,093,967
NL/NI/NEMV <sup>1</sup>	\$ 3,256,966	\$ 1,068,139	\$ 277,853	\$ 100,925	\$ 4,703,883
External EMV <sup>2</sup>	\$ 1,012,542	\$ 307,772	\$ 236,511	\$ 87,943	\$ 1,644,768
Total	\$ 12,272,571	\$ 4,692,387	\$ 4,418,181	\$ 1,810,427	\$ 23,193,567

- 1. "NL/NI/NEMV" indicates the non-labor, non-incentive and non-external EM&V budget amount.
- 2. "External EMV" expenditures are those that have been budgeted for the independent third-party review of Avista's acquisition claims. It does not include internal labor allocated towards EM&V or regulatory functions.

It is notable that the percentage of total utility expenditures dedicated to incentives, 59%, is lower than the 64% incentive expenditures from the 2011 budget and continues the trend towards incentives becoming a decreasing portion of utility expenditures. The 2012 decrease in the proportion of utility funds expended on incentives is largely the result of decreased acquisition and consequentially reduced incentive expenditures without a comparable decrease in the non-incentive budget. Future increases in acquisition, driven perhaps by improvement in general economic conditions, would act to reverse this trend.

The budget issues described above are an example of how portfolio cost-effectiveness can be impacted by variations in energy acquisition when infrastructure costs are relatively fixed in the short-run. A decrease in acquisition that is not matched by a commensurate decrease in infrastructure cost will lead to more demanding infrastructure cost burdens within the portfolio. Given that most infrastructure costs cannot be rapidly ramped up or down without suffering losses in efficiency, and many types of infrastructure costs often have significant economies of scale, reductions in acquisition tend to lead to reductions in portfolio cost-effectiveness. If these acquisition reductions were perceived as long-term it would be appropriate to review these infrastructure commitments, whereas adjusting infrastructure for short-term acquisition challenges may result in unnecessary ramp-up costs at a later date.

Avista is not proposing to extend the Washington guidance of expending 3% to 6% of total DSM expenditures on EM&V activities into 2012. This guidance was memorialized as part of the 2010-2011 BCP conditions and the Company is specifically revising the guidance to be based upon an amount that is sufficient and prudent for the need. Though no commitments have been made, the table below illustrates the status of the 2012 Avista EM&V budget.

<u>Table 12</u>: EM&V expenditures in comparison to the total DSM budget

	WA electric		ID electric			WA gas		ID gas	
Non-labor EM&V expenses	\$	1,012,542	\$	307,772	\$	236,511	\$	87,943	
Internal EM&V labor	\$	95,690	\$	40,687	\$	56,584	\$	24,068	
Total EM&V expense	\$	1,108,233	\$	348,459	\$	293,095	\$	112,011	
Total utility expenditures	\$	12,272,571	\$	4,692,387	\$	4,418,181	\$	1,810,427	
NL EM&V as a % of total		8.3%		6.6%		5.4%		4.9%	

	Total WA			Total ID	,	Total system
Non-labor EM&V expenses	\$	1,249,053	\$	395,715	\$	1,644,768
Internal EM&V labor	\$	152,274	\$	64,755	\$	217,030
Total EM&V expense	\$	1,401,327	\$	460,470	\$	1,861,798
Total utility expenditures	\$	16,690,752	\$	6,502,815	\$	23,193,567
NL EM&V as a % of total		7.5%		6.1%		7.1%

Notably if the total 2012 DSM expenditures being dedicated to non-labor EM&V expenses was compared to the 2011 budget rather than the lower (by 18%) 2012 DSM budget, this percentage would be 5.8% rather than 7.1%. Thus the increase in EM&V expenditures as a percentage of total expenditures in 2012 is largely the result of decreases in the overall total budget. Nevertheless, the non-labor EM&V system expenditures is projected to increase by \$240k (17%) from the same category of expenditures in the prior year.

The tables above also indicate the jurisdictional and fuel allocations of the EM&V expenditures. Avista is continuing the policy of budgeting and allocating DSM expenditures between fuel and jurisdictional portfolios based upon the value that the expenditures have to each category as well

as where the regulatory requirements driving the expenditure were initiated. Since many of the specific EM&V requirements are the result of Washington I-937 compliance and Washington natural gas fixed cost recovery mechanisms, those costs shift more towards the Washington jurisdiction than the Company's typical 70% Washington allocation would otherwise dictate.

A more detailed breakout of the total budget expenditures is contained in tables 13, 14 and 15 below.

Table 13: 2012 electric budget detail

Program	Measure package	System electric incentives		-	em electric NL/NI	Sy	stem electric labor	Total electric budget		
Non-res	Site-Specific	\$	3,250,000	\$	-	\$	628,470	\$	3,878,470	
Non-res	Psc Energy Smart Grocer	\$	539,641	\$	-	\$	96,899	\$	636,540	
Non-res	Psc Green Motors	\$	3,943	\$	-	\$	901	\$	4,844	
Non-res	Psc PC Network Controls	\$	6,540	\$	-	\$	1,644	\$	8,184	
Non-res	Psc Clothes Washers	\$	5,284	\$	-	\$	885	\$	6,169	
Non-res	Psc Food Service	\$	42,373	\$	-	\$	11,836	\$	54,208	
Non-res	Psc Lighting	\$	1,727,795	\$	-	\$	377,082	\$	2,104,877	
Non-res	Psc Motors	\$	117,041	\$	-	\$	21,168	\$	138,209	
Non-res	Psc VFDs	\$	184,660	\$	-	\$	62,731	\$	247,391	
Non-res	Psc Windows/insulation	\$	21,331	\$	-	\$	4,222	\$	25,553	
Non-res	Psc HVAC	\$	-	\$	-	\$	-	\$	-	
Non-res	Psc standby gen block htr	\$	19,954	\$	-	\$	2,280	\$	22,234	
Non-res	RCM	\$	-	\$	84,000	\$	-	\$	84,000	
Non-residential total		\$	5,918,561	\$	84,000	\$	1,208,119	\$	7,210,680	

Program	Measure package	System gas incentives		System gas NL/NI		System gas labor		Total gas budget	
Res home improvement	AS heat pump	\$	-	\$	-	\$	-	\$	-
Res home improvement	Ductless heat pump	\$	_	\$	_	\$	_	\$	_
Res home improvement	VSM	\$	_	\$	_	\$	_	\$	_
Res home improvement	Water heater	\$	22,700	\$	_	\$	3,745	\$	26,445
Res home improvement	E to NG furnaces	\$		\$	_	\$	-	\$	20,
Res home improvement	E to AS heat pump	\$	_	\$	_	\$	_	\$	_
Res home improvement	E to NG water heat	\$	_	\$	_	\$	_	\$	_
Res home improvement	Insulation	\$	386,200	\$	_	\$	112,808	\$	499,008
Res home improvement	Fireplace damper	\$	1,200	\$	_	\$	53	\$	1,253
Res home improvement	NG furnace	\$	981,200	\$	_	\$	201,961	\$	1,183,161
Res home improvement	In home energy audit	\$	43,800	\$	_	\$		\$	43,800
Res home improvement	Res lighting	\$	-	\$	_	\$	_	\$	-
Res home improvement	Event CFL distributions	\$	_	\$	_	\$	_	\$	_
Res new construction	AS heat pump	\$	_	\$	_	\$	_	\$	_
Res new construction	Ductless heat pump	\$	_	\$	_	\$	_	\$	_
Res new construction	VSM	\$	_	\$	_	\$	_	\$	_
Res new construction	Water heaters	\$	99	\$	_	\$	25	\$	124
Res new construction	NG furnace	\$	-	\$	-	\$	9,880	\$	9,880
Res new construction	Energy Star homes	\$	298,911	\$	-	\$	19,551	\$	318,462
Res new construction	Res multifamily MT	\$	´ <b>-</b>	\$	-	\$	-	\$	´ <b>-</b>
Res appliances	Clothes washer	\$	143,600	\$	-	\$	13,681	\$	157,281
Res appliances	Refrigerator/Freezer	\$	-	\$	-	\$	-	\$	_
Res appliances	JACO	\$	_	\$	-	\$	-	\$	-
Low income	Low income	\$	864,639	\$	16,012	\$	10,304	\$	890,955
Residential (including low income) total		\$	2,742,349	\$	16,012	\$	372,008	\$	3,130,369

Table 13 cont'd

Program	Measure package	System electric incentives		System electric NL/NI		System electric labor		Total electric budget	
Regional	NEEA	\$	-	\$	2,160,000	\$	-	\$	2,160,000
Past performance pgms	Quantum Eng. RFP pymts	\$	-	\$	325,552	\$	-	\$	325,552
Past performance pgms	WAGA RFP payments	\$	-	\$	636,664	\$	-	\$	636,664
Infrastructure- general	EPRI	\$	-	\$	80,000	\$	-	\$	80,000
Infrastructure- general	CEE	\$	-	\$	6,400	\$	-	\$	6,400
Infrastructure- general	ELB	\$	-	\$	560,000	\$	-	\$	560,000
Infrastructure- general	E-Source	\$	-	\$	40,000	\$	-	\$	40,000
Infrastructure- general	Travel & training	\$	-	\$	40,000	\$	-	\$	40,000
Infrastructure- general	Other expenses	\$	-	\$	16,000	\$	-	\$	16,000
Infrastructure- general	CFL recycling	\$	-	\$	5,000	\$	-	\$	5,000
Infrastructure- general	SLIP funding	\$	-	\$	40,000	\$	-	\$	40,000
Infrastructure- general	Regulatory, PPA functions	\$	-	\$	-	\$	299,536	\$	299,536
Infrastructure-EM&V	Cadmus EM&V	\$	-	\$	1,083,814	\$	-	\$	1,083,814
Infrastructure-EM&V	RTF dues	\$	-	\$	85,000	\$	-	\$	85,000
Infrastructure-EM&V	EM&V equipment	\$	-	\$	22,500	\$	-	\$	22,500
Infrastructure-EM&V	Gas CPA	\$	-	\$	105,000	\$	-	\$	105,000
Infrastructure-EM&V	EM&V consultiing	\$	-	\$	24,000	\$	-	\$	24,000
Infrastructure-EM&V	General EM&V	\$	-	\$	-	\$	136,378	\$	136,378
Regional, past programs and infrastructure total		\$	-	\$	5,229,931	\$	435,914	\$	5,665,845
Total budget		\$	9,381,307	\$	5,645,419	\$	1,938,233	\$	16,964,958

<u>Table 14</u>: Natural gas budget detail

Program	Measure package	System gas incentives	Syste	m gas NL/NI	Syst	em gas labor	Tot	tal gas budget
Non-res	Site-Specific	\$ 1,484,375	\$	-	\$	460,350	\$	1,944,725
Non-res	Psc Energy Smart Grocer	\$ -	\$	-	\$	-	\$	-
Non-res	Psc Green Motors	\$ -	\$	-	\$	-	\$	-
Non-res	Psc PC Network Controls	\$ -	\$	-	\$	-	\$	-
Non-res	Psc Clothes Washers	\$ 13,289	\$	-	\$	2,165	\$	15,454
Non-res	Psc Food Service	\$ 36,546	\$	-	\$	19,227	\$	55,773
Non-res	Psc Lighting	\$ -	\$	-	\$	-	\$	-
Non-res	Psc Motors	\$ -	\$	-	\$	-	\$	-
Non-res	Psc VFDs	\$ -	\$	-	\$	-	\$	-
Non-res	Psc Windows/insulation	\$ 48,908	\$	-	\$	20,491	\$	69,399
Non-res	Psc HVAC	\$ 44,176	\$	-	\$	23,699	\$	67,875
Non-res	Psc standby gen block htr	\$ -	\$	-	\$	-	\$	-
Non-res	RCM	\$ -	\$	21,000	\$	-	\$	21,000
Nonres total		\$ 1,627,293	\$	21,000	\$	525,933	\$	2,174,226

Program	Maggura pookaga		System gas incentives	Cyata	m gas NL/NI	Creet	em gas labor	Total	al gas budget
	Measure package	\$	licelitives	\$	ili gas NL/Ni	\$	em gas labor	0	ai gas budget
Res home improvement	AS heat pump	•	-	<b>D</b>	-	φ Φ	-	•	-
Res home improvement	Ductless heat pump	\$	-	\$	-	\$	-	\$	-
Res home improvement	VSM	\$	-	\$	-	\$	-	\$	-
Res home improvement	Water heater	\$	22,700	\$	-	\$	3,745	\$	26,445
Res home improvement	E to NG furnaces	\$	-	\$	-	\$	-	\$	-
Res home improvement	E to AS heat pump	\$	-	\$	-	\$	-	\$	-
Res home improvement	E to NG water heat	\$	-	\$	-	\$	-	\$	-
Res home improvement	Insulation	\$	386,200	\$	-	\$	112,808	\$	499,008
Res home improvement	Fireplace damper	\$	1,200	\$	-	\$	53	\$	1,253
Res home improvement	NG furnace	\$	981,200	\$	-	\$	201,961	\$	1,183,161
Res home improvement	In home energy audit	\$	43,800	\$	-	\$	-	\$	43,800
Res home improvement	Res lighting	\$	-	\$	-	\$	-	\$	-
Res home improvement	Event CFL distributions	\$	-	\$	-	\$	-	\$	-
Res new construction	AS heat pump	\$	-	\$	-	\$	-	\$	-
Res new construction	Ductless heat pump	\$	-	\$	-	\$	-	\$	-
Res new construction	VSM	\$	-	\$	-	\$	-	\$	-
Res new construction	Water heaters	\$	99	\$	-	\$	25	\$	124
Res new construction	NG furnace	\$	-	\$	-	\$	9,880	\$	9,880
Res new construction	Energy Star homes	\$	298,911	\$	-	\$	19,551	\$	318,462
Res new construction	Res multifamily MT	\$	-	\$	-	\$	-	\$	-
Res appliances	Clothes washer	\$	143,600	\$	-	\$	13,681	\$	157,281
Res appliances	Refrigerator/Freezer	\$	-	\$	-	\$	-	\$	-
Res appliances	JACO	\$	-	\$	-	\$	-	\$	-
Low income	Low income	\$	864,639	\$	16,012	\$	10,304	\$	890,955
Residential (including low	income) total	\$	2,742,349	\$	16,012	\$	372,008	\$	3,130,369

Table 14 cont'd

System gas									
Program	Measure package	i	ncentives	Syst	em gas NL/NI	Sys	tem gas labor	Tot	al gas budget
Regional	NEEA	\$	-	\$	146,167	\$	-	\$	146,167
Past performance pgms	Quantum Eng. RFP pymts	\$	-	\$	-	\$	-	\$	-
Past performance pgms	WAGA RFP payments	\$	-	\$	-	\$	-	\$	-
Infrastructure- general	EPRI	\$	-	\$	20,000	\$	-	\$	20,000
Infrastructure- general	CEE	\$	-	\$	1,600	\$	-	\$	1,600
Infrastructure- general	ELB	\$	-	\$	140,000	\$	-	\$	140,000
Infrastructure- general	E-Source	\$	-	\$	10,000	\$	-	\$	10,000
Infrastructure- general	Travel & training	\$	-	\$	10,000	\$	-	\$	10,000
Infrastructure- general	Other expenses	\$	-	\$	4,000	\$	-	\$	4,000
Infrastructure- general	CFL recycling	\$	-	\$	-	\$	-	\$	-
Infrastructure- general	SLIP funding	\$	-	\$	10,000	\$	-	\$	10,000
Infrastructure- general	Regulatory, PPA functions	\$	-	\$	-	\$	177,141	\$	177,141
Infrastructure-EM&V	Cadmus EM&V	\$	-	\$	270,954	\$	-	\$	270,954
Infrastructure-EM&V	RTF dues	\$	-	\$	-	\$	-	\$	-
Infrastructure-EM&V	EM&V equipment	\$	-	\$	2,500	\$	-	\$	2,500
Infrastructure-EM&V	Gas CPA	\$	-	\$	45,000	\$	-	\$	45,000
Infrastructure-EM&V	EM&V consultiing	\$	-	\$	6,000	\$	-	\$	6,000
Infrastructure-EM&V	General EM&V	\$	-	\$	-	\$	80,652	\$	80,652
Regional, past programs a	nd infrastructure total	\$	-	\$	666,220	\$	257,793	\$	924,014
Total budget		\$	4,369,642	\$	703,232	\$	1,155,734	\$	6,228,608

<u>Table 15</u>: Aggregate budget summary

Program	Measure package	Е	Electric budget Gas budget			Total budget		
Non-res	Site-Specific	\$	3,878,470	\$	1,944,725	\$ 5,823,195		
Non-res	Psc Energy Smart Grocer	\$	636,540	\$	-	\$ 636,540		
Non-res	Psc Green Motors	\$	4,844	\$	-	\$ 4,844		
Non-res	Psc PC Network Controls	\$	8,184	\$	-	\$ 8,184		
Non-res	Psc Clothes Washers	\$	6,169	\$	15,454	\$ 21,623		
Non-res	Psc Food Service	\$	54,208	\$	55,773	\$ 109,981		
Non-res	Psc Lighting	\$	2,104,877	\$	-	\$ 2,104,877		
Non-res	Psc Motors	\$	138,209	\$	-	\$ 138,209		
Non-res	Psc VFDs	\$	247,391	\$	-	\$ 247,391		
Non-res	Psc Windows/insulation	\$	25,553	\$	69,399	\$ 94,952		
Non-res	Psc HVAC	\$	-	\$	67,875	\$ 67,875		
Non-res	Psc standby gen block htr	\$	22,234	\$	-	\$ 22,234		
Non-res	RCM	\$	84,000	\$	21,000	\$ 105,000		
Non-residential total		\$	7,210,680	\$	2,174,226	\$ 9,384,906		

Program	Measure package	Ele	Electric budget		Gas budget	Total budget	
Res home improvement	AS heat pump	\$	113,176	\$	-	\$	113,176
Res home improvement	Ductless heat pump	\$	9,537	\$	-	\$	9,537
Res home improvement	VSM	\$	140,639	\$	-	\$	140,639
Res home improvement	Water heater	\$	27,482	\$	26,445	\$	53,927
Res home improvement	E to NG furnaces	\$	91,378	\$	-	\$	91,378
Res home improvement	E to AS heat pump	\$	201,433	\$	-	\$	201,433
Res home improvement	E to NG water heat	\$	24,899	\$	-	\$	24,899
Res home improvement	Insulation	\$	113,030	\$	499,008	\$	612,038
Res home improvement	Fireplace damper	\$	313	\$	1,253	\$	1,567
Res home improvement	NG furnace	\$	-	\$	1,183,161	\$	1,183,161
Res home improvement	In home energy audit	\$	11,049	\$	43,800	\$	54,849
Res home improvement	Res lighting	\$	581,292	\$	-	\$	581,292
Res home improvement	Event CFL distributions	\$	29,065	\$	-	\$	29,065
Res new construction	AS heat pump	\$	94	\$	-	\$	94
Res new construction	Ductless heat pump	\$	-	\$	-	\$	-
Res new construction	VSM	\$	687	\$	-	\$	687
Res new construction	Water heaters	\$	-	\$	124	\$	124
Res new construction	NG furnace	\$	-	\$	9,880	\$	9,880
Res new construction	Energy Star homes	\$	120,972	\$	318,462	\$	439,433
Res new construction	Res multifamily MT	\$	200,769	\$	-	\$	200,769
Res appliances	Clothes washer	\$	3,612	\$	157,281	\$	160,893
Res appliances	Refrigerator/Freezer	\$	115,527	\$	-	\$	115,527
Res appliances	JACO	\$	420,032	\$	-	\$	420,032
Low income	Low income	\$	1,883,449	\$	890,955	\$	2,774,404
Residential (including low income) total		\$	4,088,433	\$	3,130,369	\$	7,218,802

Table 15 cont'd

Program	Measure package	El	ectric budget	(	Gas budget	Т	Total budget
Regional	NEEA	\$	2,160,000	\$	146,167	\$	2,306,167
Past performance pgms	Quantum Eng. RFP pymts	\$	325,552	\$	-	\$	325,552
Past performance pgms	WAGA RFP payments	\$	636,664	\$	-	\$	636,664
Infrastructure- general	EPRI	\$	80,000	\$	20,000	\$	100,000
Infrastructure- general	CEE	\$	6,400	\$	1,600	\$	8,000
Infrastructure- general	ELB	\$	560,000	\$	140,000	\$	700,000
Infrastructure- general	E-Source	\$	40,000	\$	10,000	\$	50,000
Infrastructure- general	Travel & training	\$	40,000	\$	10,000	\$	50,000
Infrastructure- general	Other expenses	\$	16,000	\$	4,000	\$	20,000
Infrastructure- general	CFL recycling	\$	5,000	\$	-	\$	5,000
Infrastructure- general	SLIP funding	\$	40,000	\$	10,000	\$	50,000
Infrastructure- general	Regulatory, PPA functions	\$	299,536	\$	177,141	\$	476,678
Infrastructure-EM&V	Cadmus EM&V	\$	1,083,814	\$	270,954	\$	1,354,768
Infrastructure-EM&V	RTF dues	\$	85,000	\$	-	\$	85,000
Infrastructure-EM&V	EM&V equipment	\$	22,500	\$	2,500	\$	25,000
Infrastructure-EM&V	Gas CPA	\$	105,000	\$	45,000	\$	150,000
Infrastructure-EM&V	EM&V consultiing	\$	24,000	\$	6,000	\$	30,000
Infrastructure-EM&V	General EM&V	\$	136,378	\$	80,652	\$	217,030
Regional, past programs	and infrastructure total	\$	5,665,845	\$	924,014	\$	6,589,858
Total budget		\$	16,964,958	\$	6,228,608	\$	23,193,567

The overall budget reductions described within this section represent a departure from the typical upward trend in DSM budgets (and acquisition) since the tariff rider returned to an approximately zero balance in 2005. This reduction seems to be reasonable and responsible in that it reflects the reduction in acquisition caused by tax credit cessation and general economic conditions. Since these factors are also anticipated to be relatively short-term in nature it seems inadvisable to impose significant infrastructure cost reductions at this time.

#### **DSM Tariff Rider Projections**

Avista's DSM operations are funded by Schedule 91 (electric) and Schedule 191 (natural gas). The Company periodically (annually effective approximately July 1 in Washington and on an asnecessary basis in Idaho) adjusts the tariff rider surcharge contained within the DSM component of these two schedules to deliver a funding level that will put the tariff rider balance at an approximately zero balance at the end of the planning period (usually one year).

The Company does not and will not constrain funding for cost-effective DSM based upon the tariff rider balance. "Negative" (customer owes shareholder) balances do occur and the Company continues to fund DSM operations secure in the knowledge that the DSM cost-recovery method allows for reimbursement in a reasonably timely fashion.

The Company does pay interest on "positive" (shareholder owes customer) electric balances in both Washington and Idaho. No such interest provision exists on the natural gas DSM tariff rider. There are no provisions for the Company to receive interest on either tariff rider.

Since the Washington tariff rider revisions become effective at mid-year and require the Company to project expenses over the following year, estimating the mid-2012 revision to the tariff rider revenue requirement involves projecting DSM expenses to mid-2013 (six months beyond the scope of the 2012 DSM Business Plan). For purposes of this projection it is assumed that early 2013 expenses will be 10% above the calendar year 2012 expense level. These calculations are reflected in Table 16 below.

Table 16: Summary of tariff rider revenue requirement projections

	WA elec	ID elec	WA gas		ID gas
	\$	\$	\$		
End of month September 2011 balance	3,246,799	1,056,351	254,359	\$	1,066,365
	\$	\$	\$		
Expected revenues Oct-Dec 2011 inclusive	4,368,000	2,081,000	2,828,000	\$	1,523,000
	\$	\$	\$		
Budgeted expend. Oct-Dec 2011 inclusive	3,753,291	1,435,640	1,361,683	\$	547,353
	\$	\$	\$		
Projected end of year 2011 balance	3,861,508	1,701,711	1,720,676	\$	2,042,012
	\$	\$	\$		
Projected rev. Jan-Jun 2012 inclusive	8,958,000	3,899,000	4,328,000	\$	2,353,000
Budgeted expend. for Jan-Jun 2012	\$	\$	\$		
inclusive	6,136,285	2,346,194	2,209,091	\$	905,214
	\$	\$	\$		
Projected end of June 2012 balance	6,683,223	3,254,517	3,839,585	\$	3,489,799
	\$	\$	\$		
Projected expenditures for Jul-Dec 2012	6,136,285	2,346,194	2,209,091	\$	905,214
Assumed ramp rate from CY 2012 to Jan-					
Jun 2013	10%	10%	10%		10%
	\$	\$	\$	_	
Projected expenditures for Jan-Jun 2013	6,749,914	2,580,813	2,430,000	\$	995,735
Revenue requirement for Jul 2012-Jun	\$	\$	\$		4 500 054
2013	6,202,977	1,672,490	799,505	\$	(1,588,851)
Change in tariff rider rev. vs. that					
collected in 2011-2012	-64%	-79%	-91	%	-133%

The analysis above indicates that there will be a substantial reduction in revenue requirement for the mid-2012 to mid-2013 time period across all four tariff riders. In the case of the Idaho natural gas DSM portfolio, it appears to be possible to fund that entire twelve-month period without any tariff rider revenue during that period at all. The other three tariff riders (Washington electric and natural gas and Idaho electric) will see reductions in the revenue requirement ranging from 64% to 91% in comparison to the revenue collected in the prior twelve-month period.

This major shift is attributable to several factors:

- 1. The tariff rider during the prior twelve months has generated substantial revenue, largely to offset prior negative (customer owes shareholder) balances.
- 2. The expected reduction in early 2012 expenditures will contribute towards a larger balance heading into the mid-2012 recalculation.
- 3. The expected reduction in late 2012 expenditures will lead to a lower revenue requirement necessary for mid-2012 to mid-2013 operations.

## VIII. Issues for 2012 Management Focus

This annual business planning process concludes with the identification of key issues which are expected to require management focus during the following year. It is also an opportunity for a retrospective review and update of those issues identified in the previous year.

#### Review of management focus issues identified in the 2011 DSM Business Plan

The 2011 DSM Business Plan identified issues that can be generally categorized as (1) managing the uncertainties associated with the application of realization rates developed after year end to the determination of verified Washington acquisition, (2) natural gas DSM portfolio acquisition and cost-effectiveness challenges and (3) uncertainty in regards to NEEA electric DSM acquisition during a particular calendar year due to the timing of the reports.

The realization rate and consequential Washington acquisition level uncertainties have been successfully addressed to some degree during 2011, though admittedly the uncertainty can never be completed eliminated. Significant factors leading to the reduction in uncertainty include:

- 1. Adapting the timing of EM&V processes to allow for early indications of realization rates
- 2. Establishing unit energy savings values for standardized measures that establishes symmetry between the methodology and assumptions used in the development of the acquisition target and the subsequent measurement of the acquisition target.
- 3. Preliminary indications from external third-party evaluators and year-to-date 2011 participation history indicate lower participation and acquisition.

The ability of the Company to reach natural gas acquisition and cost-effectiveness targets was identified as an issue for 2011 and beyond. This has not only continued to be an issue, but the expected acquisition shortfall (15% in 2011) is expected to be even greater in 2012. Similarly the expected TRC cost-effectiveness has become more of a problem. These issues will be revisited as part of the 2012 review of issues.

Management issues caused by the uncertainties in NEEA electric acquisition related to the timing of the reports have been relayed to NEEA staff. NEEA has provided Avista with non-binding guidance regarding likely acquisition during the 2011 time period. This guidance became incorporated into the projections that led to the launch of the CFL contingency program in late 2011. Avista expects that NEEA staff will remain available to provide their best estimate of claimable acquisition during the 2012-2013 biennium, with the understanding that such projections are be non-binding in nature.

#### Issues identified for management focus during 2012

The business planning process comprehensively assesses the challenges and opportunities anticipated within the following year. Key elements that are always reviewed with particular attention include resource acquisition and cost-effectiveness. Other operational issues are addressed as appropriate.

As previously described within this document, the cost-effectiveness and acquisition of the electric portfolio seem to be capable of fully meeting expectations. The prospects for similar success within the natural gas portfolio are more problematic. There are additional concerns relating to meeting expectations for the cost-effectiveness of the Washington combined fuel low income portfolio. The composition of the budget also leads to an increasing need to manage the net-to-gross ratio of the portfolio.

#### Natural Gas DSM Portfolio Cost-Effectiveness and Acquisition

The natural gas DSM portfolio has persistently faced greater cost-effectiveness challenges than its electric counterpart. Natural gas technologies have not advanced as rapidly and the avoided cost (on a per mmBTU basis) is approximately 30% of comparable electric avoided costs. Obtaining customer interest in efficiency investments is more difficult by virtue of the passive nature of most natural gas end-uses and the higher customer satisfaction with the energy value.

As indicated earlier, Avista takes a holistic view of cost-effectiveness in that all standard practice tests (except for the full societal test) are calculated and utilized in measure, program and portfolio development. Additionally other metrics are calculated and applied to the extent that they may offer insight into portfolio performance. In the majority of circumstances it is the TRC test that is the most challenging test to pass, and it is this test that remains the focus of the management of the natural gas portfolio.

Establishing and maintaining a viable and TRC cost-effective natural gas DSM portfolio requires that a reasonable number of incrementally cost-effective individual measures be identified and that those measures be sufficiently cost-effective to fully offset infrastructure costs. Avista's methodology for assigning incremental non-incentive costs at various levels of measure, program or portfolio aggregation plays an important role constructing an optimal portfolio, but there are subjective issues that merit further discussion.

It is arguable whether the natural gas portfolio's current share of combined fuel portfolio costs is truly incremental to the natural gas portfolio. These costs could not entirely be excluded if the natural gas portfolio did not exist. Additionally, the allocation of joint non-incentive utility cost has generally been made upon a BTU basis where direct assignment is not possible. For dual-fuel measures (those simultaneously yielding electric and natural gas savings) the assignment of customer incremental cost is also usually based upon a BTU allocation. Allocating those costs based upon avoided cost rather than BTU's would reflect the resource value more closely and would reduce the burden placed upon the natural gas portfolio. Avista has performed sensitivities surrounding revisions in these allocations in the past and found that it does lead to marginally higher values for the natural gas portfolio. Time limitations prevented the same sort of analysis prior to the completion of this document.

There remains the potential for the redesign or termination of cost-ineffective programs and an increased emphasis on cost-effective measures. It is also likely that additional cost-effective measures not currently incorporated into the portfolio will be identified during the upcoming natural gas CPA scheduled to begin November 2011 and complete early in 2012.

The general economic conditions and the substantial reduction in available tax credits are clearly outside of the control of Avista. Nevertheless the business planning process has identified management actions that may mitigate the adverse impact of the expected 2012 challenges. The cost-effectiveness and acquisition issues are closely related and therefore should be jointly addressed over the course of 2012. The following seven actions identified below have the potential to improve portfolio acquisition or cost-effectiveness.

- 1. Review all non-cost-effective natural gas measures for redesign or termination. Perform this program management function based upon current impact evaluation results contained within the Avista TRM.
- 2. Perform an analysis to determine what measures may be cost-effective in the absence of labor cost allocations. For measures that would be cost-effective in the absence of allocated labor, review the short and long-term assumptions associated with that labor allocation and move forward with portfolio optimization as appropriate.
- 3. Review cost-effective measures and identify those that are of a lost opportunity nature. Initiate a review and discussion of steps that may be taken to maximize the acquisition of these measures in recognition of the long-term resource impacts associated with lost opportunity measures.
- 4. Analyze the impact of alternative methods of allocating non-incentive utility costs and customer incremental cost for application to both dual-fuel measures and for the distribution of infrastructure costs. Identify where different allocation methodologies may lead to different management or policy decisions.
- 5. Broach the fundamental question of fixed cost allocation across the electric and natural gas portfolios. Specifically, initiate the discussion of whether the natural gas portfolio should bear only those costs that are truly incremental to that portfolio for purposes of cost-effectiveness calculation with the more robust electric portfolio bearing the remainder of the utility costs.
  - Also consider whether the allocation of fixed costs for purposes of costeffectiveness calculations is necessarily the same method as that which is used for cost recovery.
- 6. Continue to work with NEEA and regional natural gas utilities to establish and launch a regional market transformation tool that can cost-effectively augment the local utility portfolio. Successfully doing so has the potential to simultaneously improve both acquisition and cost-effectiveness.
- 7. Work closely with the Avista Gas Supply Department to obtain early indications of the avoided cost projections likely to be identified within the 2012 natural gas IRP. Incorporate these projections into the management of the natural gas portfolio as they become available. The most recent guidance indicating a 1/4<sup>th</sup> reduction in avoided cost could have significant impacts upon the viability of the natural gas portfolio.

#### Combined Fuel Washington Low Income Portfolio Cost-Effectiveness

Avista recognizes and is committed to fulfilling the obligation to manage all aspects and components of the DSM portfolio to achieve the maximum value possible for Avista's ratepayers. The Company has made a specific commitment to track and manage the TRC cost-effectiveness of the combined fuel Washington low-income portfolio.

The implementation of the low income portfolio is performed in close cooperation with six community action agencies. These agencies receive annual funding contracts. Though significant flexibility is provided to these agencies, in order to promote the cost-effectiveness of the portfolio some measures require Avista pre-approval.

The 2010 natural gas impact evaluation resulted in a realization rate for the Washington low-income portfolio of approximately 30%. The electric impact evaluation is not yet complete but may result in similar findings. A portfolio cost-effectiveness sensitivity analysis surrounding the realization rate was performed to determine the possible impacts of this uncertainty. If allocated labor is excluded from the cost burden for the low income portfolio a realization rate of 73% is required for the portfolio to achieve TRC cost-effectiveness.

#### Recommendations for consideration in 2012 include:

- 1. Comprehensively review the portfolio when the results of the electric impact evaluation are complete. Make revisions to those measures which require Avista pre-approval based upon the need to deliver a cost-effective dual-fuel portfolio.
- 2. Initiate a discussion of the role that the low income portfolio plays within the DSM portfolio, the meaning of the cost-effectiveness commitments for this customer segment and how these differ from the objectives of the agencies.

#### Ongoing Management of Net-to-Gross Issues

The projections for 2012 indicate a reduction in acquisition and incentive expenditures without a commensurate reduction in non-incentive expenditures. Though the drivers of this trend, the effect of federal tax credits and economic conditions upon 2012 acquisition, are not long term issues, there remains the need to manage their short term implications upon portfolio performance.

The composition of the 2012 budget calls for increased attention to the management of net-to-gross ratios throughout the portfolio. This is because one of the most significant implications of this 2012 projection is the increased sensitivity between net and gross TRC cost-effectiveness caused by an increased proportion of non-incentive expenditures within the total utility portfolio.

1. It is recommended that program managers review all programs with the intent to develop alternatives for improving net-to-gross ratio performance without undue compromises to other program objectives.

### Manage Regulatory Costs and Maintain Focus on Operational Performance

The Company has experienced a dramatic growth in regulatory requirements within the Washington jurisdiction. The impact of this trend upon increasing utility cost, primarily but not restricted to independent third-party EM&V requirements, has been noted previously within the 2012 DSM Business Plan. These additional costs are a major contributor towards the reduction

in incentives as a percentage of total utility cost, which in turn increases the sensitivity to the netto-gross ratios and burdens portfolio cost-effectiveness.

Related to this issue, and potentially more important than long-term operational performance, is the degree to which management focus and innovation is shifting towards regulatory and policy issues at the expense of attention to DSM implementation. Given the cost-effectiveness and acquisition challenges that lie ahead, there is a critical need to prioritize these critical operational efforts that lead to improved portfolio performance.

#### Continue What Works

The steps taken in 2011 have improved the ability of Avista to plan and manage for meeting acquisition targets that are equitably established and fairly measured. This discussion and progress occurred as part of the development of the 2012-2013 Washington BCP filing.

Also related to the theme of continuing what works, it is advisable to continue to work closely with NEEA with particular attention to (1) ensuring that the organization remains responsive to the needs of Washington investor-owned utilities subject to I-937 acquisition requirements, (2) work towards replacing the gaps that are and will be felt within the regional portfolio as residential lighting markets approach complete transformation, (3) maintain a high degree of awareness in regard to the importance of geographic equity to the long-term success of the NEEA market transformation portfolio and (4) continue to work with NEEA staff to obtain timely estimates of annual acquisition.

### Ongoing 2012 Management and Monitoring

Although the 2012 DSM Business Plan is the most visible and documented planning effort that occurs during the year, it is necessary to continue this process throughout the year. The Company has made the commitment to involve the Avista Advisory Group in this process including notifications of program launches or terminations, changes in incentives or changes in eligibility.

### Appendix A

### Current Schedules 90, 190, 91, 191 Proposed Revisions to Schedules 90 and 190

The regulation permitting Avista to offer and fund DSM programs within our Washington and Idaho service territory are governed by the nine tariffs. These tariffs are:

- Schedule 90 (Washington tariff and Idaho tariff): Specifies the conditions under which Avista operates electric DSM programs.
- Schedule 190 (Washington tariff and Idaho tariff): Specifies the conditions under which Avista operates natural gas DSM programs.
- Schedule 91 (Washington tariff and Idaho tariff): Establishes the tariff rider surcharge funding electric DSM and (in Washington only) LIRAP programs.
- Schedule 191 (Washington tariff and Idaho tariff): Establishes the tariff rider surcharge funding natural gas DSM and (in Washington only) LIRAP programs.
- Schedule 96 (Idaho only): Governs Avista's two-year demand-response pilot.

Avista has long sought to offer identical programs to our Washington and Idaho customers to avoid the need for distinguishing between our Washington and Idaho programs within the marketplace. This is of high importance given that the two jurisdictions are inextricably joined for purposes of program outreach and program implementation. Thus you will note an extremely high degree of similarity between the tariffs of the two jurisdictions.

The current tariffs are also available on the Company's website at www.avistautlities.com.

Washington Schedule 90

http://www.avistautilities.com/services/energypricing/wa/elect/Documents/WA 090.pdf

Washington Schedule 91

http://www.avistautilities.com/services/energypricing/wa/elect/Documents/WA 091.pdf

Washington Schedule 190

http://www.avistautilities.com/services/energypricing/wa/gas/Documents/WA 190.pdf

Washington Schedule 191

http://www.avistautilities.com/services/energypricing/wa/gas/Documents/WA 191.pdf

Idaho Schedule 90

http://www.avistautilities.com/services/energypricing/id/elect/Documents/ID 090.pdf

Idaho Schedule 91

http://www.avistautilities.com/services/energypricing/id/elect/Documents/ID 091-clean.pdf

Idaho Schedule 96

http://www.avistautilities.com/services/energypricing/id/elect/Documents/ID 096.pdf

Idaho Schedule 190

http://www.avistautilities.com/services/energypricing/id/gas/Documents/ID 190.pdf

Idaho Schedule 191

http://www.avistautilities.com/services/energypricing/id/gas/Documents/ID\_191.pdf

As mentioned within the 2012 DSM Business Plan document, the Company has been evaluating revisions to the structure of the tariffs regulating the DSM programs. This evaluation has led to a family of proposed tariffs that separately treat site-specific and various categories of prescriptive programs. These changes would remove the need for prescriptive programs to conform to the formulaic incentive guidance currently contained within Schedule 90 and Schedule 190. The formulaic incentive guidance would remain in place for application to site-specific programs.

The most recent draft of these tariffs is attached below. This remains an early draft of the proposal and will be more thoroughly reviewed with the Avista Advisory Group after the submission of this 2012 DSM Business Plan.

#### **Electric Conservation Tariffs**

Schedule numbers are obviously for illustration purposes and reference within the discussion of this draft only. The development of all prescriptive programs will be fully analyzed for cost-effectiveness, EM&V requirements and regulatory notification needs prior to the launch of the program.

#### Schedule 990 – Non-Residential Prescriptive Program

Current prescriptive programs contained within this tariff authorization include the following programs. Additional programs may be added without the need for specific Commission approval.

**Energy Smart Grocer** 

Green Motors

PC Network Controls

Prescriptive Clothes Washers

Prescriptive Food Service

Prescriptive Lighting

**Prescriptive Motors** 

Prescriptive VFDs

Commercial windows and insulation

#### Schedule 991 - Non-Residential Site-Specific Program

Electric-efficiency

Fuel-efficiency

#### Schedule 992 – Residential Home Improvement High-Efficiency Equipment Program

Current prescriptive programs contained within this tariff authorization include the following programs. Additional programs may be added without the need for specific Commission approval.

AS Heat Pump

**Ductless Heat Pump** 

**VSM** 

Water Heaters

E to NG Furnaces

E to AS Heat Pump

E to NG Water Heat

Attic

Floor

Wall

Fireplace Damper

Home Energy Audit

Multifamily Natural Gas Market Transformation Program

#### Schedule 993 – Residential New Construction Program

Current prescriptive programs contained within this tariff authorization include the following programs. Additional programs may be added without the need for specific Commission approval.

AS Heat Pump

**Ductless Heat Pump** 

**VSM** 

Water Heaters

Schedule 994 - Residential Appliance Program

Current prescriptive programs contained within this tariff authorization include the following programs. Additional programs may be added without the need for specific Commission approval. Clothes Washer Freezer Refrigerator

Schedule 997 – Low Income Residential Program

Low income residential electric-efficiency

Low income electric to natural gas conversions

## Schedule 990 Non-Residential Prescriptive Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail electric customers served under non-residential rate schedules subject to Tariff Schedule 91 (Public Purposes Rider Adjustment). Customers receiving electric distribution service provided under a special contract are ineligible for service except as specifically stated in such contract or other service agreement.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying non-residential electric or fuel efficiency appliances, equipment or measures within new or existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

Participation in the fuel efficiency components of this program does not preclude the customer from also participating in natural gas efficiency programs for the same project, if otherwise eligible.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

### Schedule 991 Non-Residential Site-Specific Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail electric customers served under non-residential rate schedules subject to Tariff Schedule 91 (Public Purposes Rider Adjustment). Customers receiving electric distribution service provided under a special contract are ineligible for service except as specifically stated in such contract or other service agreement.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying non-residential electric or fuel efficiency appliances, equipment or measures within new or existing construction with the exception of efficiency measures otherwise described within Company conservation tariffs. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

Electric to natural gas conversion measures must meet or exceed a 44% end-use efficiency requirement to be eligible for service under this Tariff.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

Efficiency measures covered through other programs defined within the Company's conservation tariffs are not eligible under this Tariff.

The Company may establish other conditions for participation to achieve the acquisition and documentation of cost-effective energy savings.

#### 4. CUSTOMER INCENTIVES

Customer incentives shall conform to the formulaic guidelines provided below. The Company shall establish and maintain additional detailed policies to ensure the non-discriminatory application of these guidelines.

The customer incentive to be provided by the Company for electric efficiency or fuel efficiency measures is based upon the simple payback of the measure prior to the application of an incentive, as calculated by Company staff and based upon standardized measure cost(s).

For electric-efficiency measures, the electric energy efficiency savings derived from the Installed measures shall be based upon comparison to the current applicable energy code or industry standard practice, whichever is higher. Simple payback is defined as the incremental capital cost associated with the electric-efficiency measure divided by the annual value of the electric savings, based upon currently applicable retail rates excluding taxes and other charges.

For electric to natural gas conversion measures, the electric savings derived from the Installed measures shall be based upon comparison to the current applicable energy code or industry standard practice, whichever is higher. Natural gas usage is based upon the usage that would occur if end-use equipment meeting current applicable energy code or industry standard practice, whichever is higher, was installed in place of electric end-use equipment. Simple payback is defined as the incremental capital cost associated with the conversion divided by the customer's annual value of the electric savings net of increased natural gas cost, based upon currently applicable retail rates excluding taxes and other charges. Participation in the electric to natural gas conversion program does not preclude the customer from also participating in natural gas-efficiency programs for the same end-use at the same time.

## **Electric-Efficiency Measures**

**Incentive Level** (cents per average annual kWh savings over the first ten years of measure life)

### Simple Pay-Back Period

0 to 1 year	0 cents
Over 1 year to 2 years	8 cents
Over 2 years to 4 years	12 cents
Over 4 years to 6 years	16 cents
Over 6 years to 8 years*	20 cents
Over 6 years to 13 years**	20 cents
Over 8 years*	0 cents
Over 13 years**	0 cents

<sup>\* =</sup> Applicable only to lighting measures

## **Fuel-Efficiency Measures**

## Incentive Level (cents per average annual kWh savings over the first ten years of measure life)

## Simple Pay-Back Period

	sarings over the motition years or measure mey
0 to 1 year	0 cents
Over 1 year to 2 years	1 cents
Over 2 years to 4 years	3 cents
Over 4 years to 6 years	5 cents
Over 6 years to 13 years	7 cents
Over 13 years	0 cents

#### 5. FUNDING

<sup>\*\* =</sup> Applicable only to non-lighting measures

## Schedule 992 Residential Home Improvement High-Efficiency Equipment Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail electric customers served under residential rate schedule 1 and subject to Tariff Schedule 91 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential electric or fuel efficiency appliances, equipment or measures within existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

Participation in the fuel efficiency components of this program does not preclude the customer from also participating in natural gas efficiency programs for the same project, if otherwise eligible.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 993 Residential New Construction Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail electric customers served under residential rate schedule 1 and subject to Tariff Schedule 91 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential electric efficiency appliances, equipment or measures within new construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 994 Residential Appliance Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail electric customers served under residential rate schedule 1 and subject to Tariff Schedule 91 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential electric efficiency appliances, equipment or measures within new or existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

### Schedule 997 Low-Income Residential Program Washington

#### 1. AVAILABILITY

The services described herein are available to all income-qualified retail electric customers served under residential rate schedules subject to Tariff Schedule 91 (Public Purposes Rider Adjustment). Income qualifications shall consist of those standards set by the Washington Department of Commerce for participation within state-funded low-income programs.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential electric or fuel efficiency appliances, equipment or measures within existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services. These additional services may include an amount of up to 10% of the program incentive funding for services that secure the integrity, effectiveness or longevity of installed energy-efficiency measures.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection, evaluation and measurement and verification purposes and review of customer eligibility.

Participation in the fuel efficiency components of this program does not preclude the customer from also participating in natural gas efficiency programs for the same project, if otherwise eligible.

#### 3. MEASURES

The Company will maintain and make available to customers a list of residential appliances, equipment and measures qualifying for service under this tariff as well as contact information for participating partner agencies assisting in the implementation of this program. This list will include a description of the measure and application and the corresponding customer incentive. This information will be available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

#### Natural Gas Conservation Tariffs

Schedule numbers are obviously for illustration purposes and reference within the discussion of this draft only. The development of all prescriptive programs will be fully analyzed for cost-effectiveness, EM&V requirements and regulatory notification needs prior to the launch of the program.

#### Schedule 890 - Non-Residential Prescriptive Program

Energy Smart Grocer
Prescriptive Clothes Washers
Prescriptive Food Service
Commercial windows and insulation
Commercial HVAC
Prescriptive steam trap replacement

## Schedule 891 – Non-Residential Site-Specific Program

Natural gas-efficiency

#### Schedule 892 – Residential Home Improvement High-Efficiency Equipment Program

NG Furnace Water Heaters

Attic

Floor

Wall

Fireplace Damper Home Energy Audit

#### Schedule 893 – Residential New Construction Program

NG Furnace Water Heaters

### Schedule 894 – Residential Appliance Program

Clothes Washer Dishwasher

## Schedule 897 – Low Income Residential Program

Low income residential natural gas-efficiency

## Schedule 890 Non-Residential Prescriptive Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail non-residential natural gas customers served under rate schedules subject to Tariff Schedule 91 (Public Purposes Rider Adjustment). Customers receiving natural gas transportation service provided under a special contract are ineligible for this Tariff.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying non-residential natural gas efficiency appliances, equipment or measures within new or existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 891 Non-Residential Site-Specific Program Washington

#### 1. AVAILABILITY

The services described herein are available to retail non-residential natural gas customers served under rate schedules subject to Tariff Schedule 91 (Public Purposes Rider Adjustment). Customers receiving natural gas transportation service provided under a special contract are ineligible for this Tariff.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying non-residential natural gas efficiency appliances, equipment or measures within new or existing construction with the exception of efficiency measures otherwise described within Company conservation tariffs. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company may establish other conditions for participation to achieve the acquisition and documentation of cost-effective energy savings.

#### 4. CUSTOMER INCENTIVES

Customer incentives shall conform to the formulaic guidelines provided below. The Company shall establish and maintain additional detailed policies to ensure the non-discriminatory application of these guidelines.

The customer incentive to be provided by the Company for natural gas efficiency measures is based upon the simple payback of the measure prior to the application of an incentive, as calculated by Company staff and based upon standardized measure cost(s).

The efficiency savings derived from the Installed measures shall be based upon comparison to the current applicable energy code or industry standard practice, whichever is higher. Simple payback is defined as the incremental capital cost associated with the electric-efficiency measure divided by the annual value of the electric savings, based upon currently applicable retail rates excluding taxes and other charges.

## **Natural Gas-Efficiency Measures**

**Incentive Level** (cents per average annual kWh savings over the first ten years of measure life)

## **Simple Pay-Back Period**

0 to 1 year	\$0.00
Over 1 year to 2 years	\$2.00
Over 2 years to 4 years	\$2.50
Over 4 years to 6 years	\$3.00
Over 6 years to 13 years	\$3.50
Over 13 years	\$0.00

#### 5. FUNDING

## Schedule 892 Residential Home Improvement High-Efficiency Program Washington

#### 1. AVAILABILITY

The services described herein are available to residential natural gas customers served under Schedule 101 rate schedules subject to Tariff Schedule 191 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential natural gas efficiency appliances, equipment or measures within existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 893 Residential New Construction Program Washington

#### 1. AVAILABILITY

The services described herein are available to residential natural gas customers served under Schedule 101 rate schedules subject to Tariff Schedule 191 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential natural gas efficiency appliances, equipment or measures within new construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 894 Residential Appliance Program Washington

#### 1. AVAILABILITY

The services described herein are available to residential natural gas customers served under Schedule 101 rate schedules subject to Tariff Schedule 191 (Public Purposes Rider Adjustment).

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential natural gas efficiency appliances, equipment or measures within new or existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection and evaluation and measurement and verification purposes.

#### 3. MEASURES

The Company will maintain and make available for public inspection a list of efficiency measures eligible under this Tariff and the current customer direct incentive. This information will be made publically available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Schedule 897 Low Income Residential Program Washington

#### 1. AVAILABILITY

The services described herein are available to income-qualified residential natural gas customers served under Schedule 101 rate schedules subject to Tariff Schedule 191 (Public Purposes Rider Adjustment). Income qualifications shall consist of those standards set by the Washington Department of Commerce for participation within state-funded low-income programs.

#### 2. ELIGIBLE SERVICES

Services provided under this tariff include direct incentives for the installation at customer premises of specific qualifying residential natural gas efficiency appliances, equipment or measures within existing construction. The Company may, at their option, provide for efficiency support services applicable to measures eligible under this Tariff to include, but not restricted to, audit services, technology evaluation and evaluation, measurement and verification services. These additional services may include an amount of up to 10% of the program incentive funding for services that secure the integrity, effectiveness or longevity of installed energy-efficiency measures.

The Company may establish requirements for customer participation within this program to include, but not restricted to, access to premises for pre-project and/or post-project inspection, evaluation and measurement and verification purposes and review of customer eligibility.

#### 3. MEASURES

The Company will maintain and make available to customers a list of residential appliances, equipment and measures qualifying for service under this tariff as well as contact information for participating partner agencies assisting in the implementation of this program. This list will include a description of the measure and application and the corresponding customer incentive. This information will be available at the Company's website, distributed through the Company's outreach program and available in hard copy upon request.

#### 4. FUNDING

## Appendix B

2012 Evaluation, Measurement and Verification Plan

The attached 2012 EM&V Plan represents the Company's current direction for meeting the requirements for evaluation of the 2012 portfolio, including the independent external third-party verification of Washington electric and natural gas acquisition.

# 2012 Evaluation, Measurement & Verification Annual Plan

## **Background**

This 2012 Evaluation Measurement & Verification (EM&V) Annual Plan, in combination with the Avista EM&V Framework, is intended to make transparent and easily accessible the evaluation, measurement and verification that is planned to be performed in 2012 in order to adequately inform and operate energy efficiency programs at Avista. This evaluation effort is not only retrospective in order to verify savings estimates of 2011 programs but also prospective to be used for program design and improved marketing of programs. This document also provides the EM&V budget split by fuel, sector, program, jurisdiction and reviewer type.

## **Overview**

Avista's 2012 EM&V Annual Plan identifies contemplated evaluation activities for the coming year on the 2011 portfolio. The components of this Plan were presented to Avista's Advisory Group at the October 18-19<sup>th</sup> Advisory Group meeting. An overview and definitions are shown in Avista's EM&V Framework, a companion document to this Plan.

#### Key aspects of this plan:

- The Company has moved to a portfolio approach for Impact and Process Analyses, insuring a comprehensive annual review of all programs, to the degree necessary, based on the magnitude of savings and uncertainty of the related unit energy savings.
- Portfolio impact and process evaluations will be conducted for all electric and natural gas programs at some level. For programs with the majority of the savings or particular aspects of interest (e.g. high level of uncertainty) impact evaluations will consist of detailed impact evaluations using approaches from the International

- Performance Measurement and Verification Protocol (IPMVP) and other industrystandard techniques for measuring and estimating program-level impacts.
- The entire natural gas portfolio will be evaluated as part of the annual decoupling requirement. External evaluators will evaluate measures and verify the savings acquired from natural gas efficiency programs. The intended scope for this evaluation will include impact as well as process evaluation. Billing analysis will be applied as appropriate.
- The second two year cycle for I-937<sup>1</sup> compliance will be complete at the end of 2013, requiring an external evaluation of the electric portfolio. Third-party evaluators will evaluate, measure and verify the savings acquired from electric efficiency programs during the 2012-2013 biennium. The intended scope for this evaluation will include impact as well as process evaluation. Billing analysis will be incorporated as appropriate.
- The evaluation of 2012 and 2013 electric programs will be initiated prior to the end of 2013 in order to meet the 2014 filing deadline.
- This planning document will not be construed as pre-approval by the Washington or Idaho commissions.
- Evaluation resources will be focused on key programs:
  - O Based upon 2011 savings and the 2012 Business Plan savings, budget and incentives, seven electric programs contribute 80 percent of the impacts. These electric programs are non-residential Energy Smart, non-residential prescriptive and site-specific lighting, non-residential site-specific HVAC, residential heating/cooling efficiency, residential lighting (which is mostly Simple Steps Smart Savings) and residential weatherization.
  - Based upon 2011 and the 2012 Business Plan savings, budget and incentives, four natural gas programs contribute seventy-three percent of the impacts. These natural gas programs having the largest impacts are non-residential site-specific HVAC, non-residential site-specific shell, residential heating/cooling efficiency and residential home weatherization.
- Most of Avista's programs are on-going programs that have been in place since 1995 for electric and 2001 for natural gas. In 2011, new offerings were launched including the CFL distribution for residential and small commercial customers and the non-residential prescriptive stand-by generator block heater pilot program. In addition, several programs were modified from prescriptive to site-specific due to variability of savings per project and will therefore, be evaluated as part of site-specific. These programs include demand-controlled ventilation, refrigerated warehouses, side-stream filtration, appliance, vending machine controls, renewable generation and building re-

<sup>&</sup>lt;sup>1</sup> Washington Initiative 937 was approved by voters on November 7, 2006. Codified as RCW 19.285 and WAC 480-109, the energy efficiency aspects of this law became effective on January 1, 2010.

commissioning. This recommendation resulted from recent evaluation results from Cadmus.

• Avista's 2012 EM&V Plan will include market research on non-residential programs.

## **Incremental EM&V Budget for 2012 Evaluations**

The total budget for incremental external evaluation is estimated to be \$1.2 million. The following table identifies individual evaluation activities that are anticipated to occur in 2011

Budget Allocation **Individual** (WA/ID **Evaluation Type Evaluations** system) Workgroup Independent External Impact/Process Evaluation Impact/Process \$200,000 **Evaluator** of CY 2011 Natural Gas (Cadmus) Independent External Impact/Process Evaluation Impact/Process \$690,000 **Evaluator** of CY 2011 Electric (Cadmus) **Evaluation of Non-Res** External Calculators for consistency **Process** \$20,000 **Evaluator** with TRM (Cadmus) External **CFL Mail Distribution** \$45,000 **Evaluator Impact** Impact/Process (Cadmus) External Heat Pump Furnace Impact \$15,000 **Evaluator** Analysis (Cadmus) Non-Participant Spillover External Quantification for \$30,000 **Impact Evaluator** Res/Non-Res (Cadmus) External Non-Res Marketing Market \$17,000 **Evaluator** Research (Cadmus) **Natural Gas Conservation** External \$150,000 Market Potential Assessment (Global) Total Budget for \$1,167,000 **Individual Evaluations** 

including an approximate allocation of the total incremental budget of each effort.

The budget above does not include the cost associated with individual internal evaluation-related activities; rather these costs are captured in the aggregate EM&V budget found in the table below. This includes both internal labor and physical equipment shared in common with other evaluations or Avista's DSM operations.

## Overall 2012 EM&V Budget

The table below captures the individual evaluations specifically identified in the previous table in aggregate and augments them with the associated expenses necessary to manage EM&V activities, perform internal EM&V evaluations, acquire physical EM&V equipment and actively participate in and fund the activities of the Regional Technical Forum (RTF).

Expense	Budget (WA/ID system)	Internal budget	External budget	WA expense	ID expense
Individual evaluations previously specified	\$1,167,000		\$1,167,000	\$933,600	\$233,400
1.2 FTE (loaded) EM&V analyst/engineer	\$217,029	\$217,029		\$152,274	\$64,755
EM&V Consulting	\$30,000		\$30,000	\$21,000	\$9,000
Regional Technical Forum dues	\$85,000		\$ 85,000	\$59,500	\$25,500
EM&V physical equipment	\$25,000	\$25,000		\$17,000	\$8,000
Total	\$1,524,029	\$242,029	\$1,282,000	\$1,183,374	\$340,655
Expected total DSM budget	\$23,193,567			\$16,690,752	\$6,502,815
EM&V as a % of total DSM budget <sup>2</sup>	6.6%			7.1%	5.2%

## **EM&V Contract with The Cadmus Group**

A "mega" RFP for EM&V on 2010-2011 electric and natural gas DSM programs was issued in November 2010. The Cadmus Group was selected and retained to complete this body of work. The findings from the 2010 Impact and Process evaluations were intended to inform the Impact and Process work plan to evaluate the 2011 programs. Some of these recommendations were considered by Avista and prioritized for the 2012 program year. Avista elected to leverage the

<sup>&</sup>lt;sup>2</sup> While EM&V expenditures will be directly assigned where appropriate, this illustrates the anticipated allocation of estimated EM&V expenditures.

existing EM&V contract and infrastructure to complete these tasks. Avista worked with The Cadmus Group to establish reasonable costs for each item.

The components of this work plan, including the individual evaluation activities delineated in the budget above and discussed in more detail later within this plan, were presented to Avista's Advisory Group on October 18 and 19<sup>th</sup>, 2011.

### **Internal EM&V Activities**

Within its DSM portfolio, Avista incorporates Evaluation, Measurement and Verification (EM&V) activities as a key process to validate and report energy savings related to its measures and programs. EM&V protocols serve to represent the comprehensive analyses and assessments necessary to supply salient information to stakeholders that adequately determines the prudence of Avista's DSM Programs. EM&V includes Impact, Process, Market and Cost Test analyses and taken as a whole are analogous with other industry standard terms such as Portfolio Evaluation or Program Evaluation.

A primary responsibility of Avista's EM&V resources within its Policy, Planning & Analysis team is to support the ongoing activities of the independent third-party EM&V consultants and evaluators performing the various analyses required to substantiate the conservation acquisition. The 2012 EM&V budget provides for independent, third-party EM&V services that provide a comprehensive portfolio evaluation. EM&V results are intended to verify the level at which claimed energy savings have occurred, evaluate the existing internal processes, and suggest improvements to the program and ongoing EM&V processes. These findings are reported in the Annual Report on Conservation Acquisition and include analysis of both program and process impacts for the specific programs reviewed.

In addition to the external evaluations, Avista EM&V resources support internal evaluations of specific measures and programs. The results of these activities are used to inform program management decisions, evaluate program effectiveness and investigate program metrics. These activities would serve to enhance the Company's knowledge base relating to its programs and energy efficiency offerings throughout its service territory.

To support planning and reporting requirements, several EM&V documents are maintained and published. These include the Avista EM&V Framework, an annual EM&V Plan and EM&V chapters within other DSM publications. Program-specific EM&V plans are created as required. These documents are reviewed and updated as necessary, serving to improve the processes and protocols for energy efficiency measurement, evaluation and verification. In addition, the

development of the Technical Reference Manual (TRM) continues and will be managed as a principal planning and reporting mechanism relative to individual prescriptive measures and their respective unit energy savings (UES).

To support new measure development, an EM&V plan is developed for each new program and will periodically be updated as informed by evaluation findings<sup>3</sup>. Additional EM&V efforts will be applied to evaluating emerging technologies and applications in consideration of potential inclusion in the Company's energy efficiency portfolio. Avista may spend up to 10 percent of its conservation budget on programs whose savings impact has not yet been measured, if the overall portfolio of conservation passes the Total Resource Cost test as modified by the Council. These programs may include educational, behavior change, and pilot projects. Specific activities can include product and application document reviews, development of Measurement and Verification Plans, field studies, data collection, statistical analysis, and solicitation of user feedback.

Avista and its customers benefit from regional activities and resources in the energy efficiency and conservation domain. To engage with and contribute to the regional efforts, Avista EM&V staff has membership on the Regional Technical Forum (RTF) that serves as an advisory committee to the Northwest Power and Conservation Council. The RTF is a primary source of information relating to the standardization of energy savings and measurement processes for electric applications in the northwest. This knowledge base provides valuation of energy efficiency metrics and references that are suitable for consideration in Avista's acquisition planning and reporting.

Additional regional activities include engagement with other Northwest utilities and the Northwest Energy Efficiency Alliance (NEEA) in various pilot projects or subcommittee evaluations. A portion of the energy efficiency savings acquired within the region through NEEA's efforts are attributed to Avista's portfolio. Plans for 2012 include participation in NEEA's Regional Building Stock Assessment with coordinated data collection activities.

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<sup>&</sup>lt;sup>3</sup> In 2010, the Policy, Planning and Analysis team was created within Avista's DSM organization to provide independent analysis and EM&V support and services for the implementation and evaluation of DSM programs.

Avista's commitment to the critical role of EM&V is supported by the Company's continued focus on the development of best practices for its processes and reporting. Application of the principles of the International Performance Measurement & Verification Protocol (IPMVP) serves as the guidelines for Measurement and Verification Plans applied to Avista programs. The verification of a statistically significant number of projects using IPMVP techniques is often extrapolated to verify and perform impact analysis on complete portfolios within reasonable standards of rigor and a reasonable degree of conservatism. This will serve to insure that Avista will manage the DSM portfolio in a manner consistent with utility and public interests.

To best serve its customers and other stakeholders, Avista will seek the "best science available" for quantifiable UES values for energy efficiency measures. This encompasses consideration of all data and informational sources that are deemed pertinent to Avista's programs as delivered including the RTF, NEEA, consultant libraries, ENERGY STAR, Sixth Power Plan, California's Database for Energy Efficient Resources (DEER), Avista-specific impact analyses and other public sources. The collection of UES values will be subject to rigorous impact evaluations to be performed by a third-party evaluator and available to the Advisory Group for review.

Within Avista's Advisory Group, a Technical Committee subgroup serves primarily within the scope of EM&V applications and currently assists Avista with the development of EM&V protocols and related conservation program considerations. These activities include providing recommendations and guidance on functional aspects of implementation and evaluation. Principal interaction with Avista includes meetings, webinars and direct interchanges. In addition, Avista provides opportunities for the Technical Committee to review the evaluation, measurement and verification protocols.

## **Summary of Individual Evaluations**

Contained below is a summary of each of the evaluation activities anticipated to occur in 2012, with external activities listed first. All savings estimates, calculations and/or assumptions will be evaluated by an independent evaluator as part of the portfolio impact and process evaluations.

## <u>Independent Impact and Process Evaluation of Electric DSM</u> Portfolio

#### Why was this selected for Evaluation?

Avista has retained The Cadmus Group to provide independent, or "third-party", review of acquisition claims for our entire 2010-2011 electric DSM portfolio.

The scope of this evaluation will include both impact and process analyses of the total portfolio with a relatively higher degree of emphasis on the seven largest programs identified earlier in this document. The impact evaluation will generate independent gross first-year and life-cycle kWh savings estimates, kW savings estimates and cost-effectiveness estimates. (Net-to-gross ratios as well as a mechanism to calculate future years' net-to-gross ratios were developed in a separate evaluation; however findings in this evaluation may update these earlier estimates). The resulting estimates will yield realization rates for Avista's gross savings claims (for Washington and Idaho separately) for the overall electric portfolio, and to the degree appropriate, for major programs within the portfolio.<sup>4</sup>

The Cadmus Group will be tasked with developing its evaluation strategies and research plans for each program in the portfolio. A range of impact activities are anticipated, depending on total savings and level of uncertainty in *ex* ante estimates for each program. Programs that have small *ex-ante* savings and/or rely on savings values from Avista's Technical Reference Manual (TRM), the Regional Technical Forum (RTF), or other

<sup>&</sup>lt;sup>4</sup> In compliance with the IPUC MOU, the resulting estimates coupled with the net-to-gross ratios provided by Avista's net-to-gross study, will yield realization rates for Avista's Idaho savings claims for the overall electric portfolio, and to the degree appropriate, for major programs within the portfolio.

"best science" sources will likely have impact evaluation efforts consisting of relatively simple verification based on Avista-prepared documentation. Participant interviews will be conducted to inform both impact and process evaluations. Programs with large savings and/or uncertainty in the *ex ante* estimates will receive detailed site visits. Medium-sized programs will receive an intermediate level of analysis, likely including document review, in some cases combined with basic site visits. Some billing analysis will be incorporated as appropriate. Furthermore, *ex poste* estimates resulting from impact evaluations will be used to update the TRM and for use in program implementation.

The process evaluation will include participant and non-participant surveys supplemented by secondary research. From this, process recommendations for the improvement of individual programs and for the portfolio overall will be provided.

Avista will provide The Cadmus Group full access to DSM records, consistent with customer confidentiality regulations. Also to retain the independent nature of the evaluation, Avista has chosen to not recommend EM&V methodologies for the overall approach including the extrapolation of the sample to the overall portfolio results, sampling strategies or suggested program exclusion from detailed review within this process.

#### Why was it chosen to be internal or external?

This is consistent with Avista's EM&V Framework filed September 1, 2010.

#### What went into this budget approximation?

Avista worked with The Cadmus Group to develop this \$690,000 estimated budget beginning with an approximation of the number of anticipated sites that might participate in Avista's programs in a given year as well as what portion of those were estimated to receive site visits in order to achieve a 90-10 confidence level over the 2010-2011 compliance period.

#### **Brief Description**

This is an overall evaluation of the electric portfolio resulting in an independent estimate of portfolio-wide energy savings. The evaluation will also develop recommendations for process improvements based upon primary data collection, an analysis of secondary sources, and integration of the results from related studies being conducted during this program cycle.

#### **Evaluation Objectives**

The final product will be an independent estimate of electric portfolio acquisition for 2011. Process evaluation will be performed, in particular, to identify potential areas for program improvement and/or innovation. Where appropriate, the findings of the impact evaluation portion of this study will effect Avista's DSM operations through revisions to the Technical Reference Manual used for program implementation purposes and tracking databases.

#### **Evaluation Approach**

Methodologies, sample selection and related evaluation requirements are intentionally left to the discretion of the independent evaluator.

#### **Timeline**

Work related to this began during 2011 with an estimated completion date of May 2012.

## <u>Independent Impact and Process Evaluation of Natural Gas DSM</u> Portfolio

### Why was this selected for Evaluation?

The decoupling settlement agreement<sup>5</sup> requires verification of DSM savings including an appropriate sampling of projects to verify the work completed, savings recorded, and a review of engineering estimates used to estimate the savings. Further, the Commission order in Docket No. UG-090135 requires the Company to file an EM&V Plan which "should include a bill verification<sup>6</sup> analysis that examines changes in customer usage as a result of DSM programs."

Pursuant to the regulatory requirements established within Avista's decoupling mechanism and to meet external expectations for independently verified portfolio acquisition estimates, Avista has chosen to retain The Cadmus Group, an independent evaluator, to evaluate the acquisition claims for the Washington/Idaho natural gas DSM portfolio.

This evaluation will include both impact and process evaluations, similar to Avista's electric portfolio evaluation, with greater emphasis on the three largest programs identified earlier in this document. These impact evaluations will generate gross first-year and life-cycle therms savings estimates and cost-effectiveness estimates. (Net-to-gross ratios as well as a mechanism to calculate future years' net-to-gross ratios were developed in a separate evaluation, however findings in these evaluations may update these earlier estimates). The resulting estimates will yield realization rates for Avista's gross savings claims (for Washington and Idaho) for the overall natural gas portfolio, and to the degree appropriate, for major programs within the portfolio.<sup>8</sup>

<sup>&</sup>lt;sup>5</sup> WUTC Order 04, Docket UG-060518, Settlement Agreement, page 7 (February 1, 2007).

<sup>&</sup>lt;sup>6</sup> Avista's intent is to incorporate billing analysis as appropriate.

<sup>&</sup>lt;sup>7</sup> WUTC Order 10, Dockets UE-090134, UG-090135, and UG-060518, consolidated, paragraph 305 (December 22, 2009). The draft EM&V Plan was filed on September 1, 2010 as required.

<sup>&</sup>lt;sup>8</sup> In compliance with the IPUC MOU, the resulting estimates coupled with the net-to-gross ratios provided by Avista's net-to-gross study, will yield realization rates for Avista's Idaho savings claims for the overall electric portfolio, and to the degree appropriate, for major programs within the portfolio.

The Cadmus Group will be tasked with developing its evaluation strategies and research plans for each program in the portfolio. A range of impact activities is anticipated, depending on total savings and level of uncertainty in *ex* ante estimates for each program. Programs that have small *ex-ante* savings and/or rely on savings values from Avista's Technical Reference Manual (TRM) or other "best science" sources will likely have impact evaluation efforts consisting of relatively simple verification based on Avista prepared documentation with some participant interviews. Programs with large savings and/or uncertainty in the *ex ante* estimates will receive detailed site visits. Medium-sized programs will receive an intermediate level of analysis, likely including document review, in some cases combined with basic site visits. Some billing analysis will be incorporated as appropriate. In addition, *ex poste* estimates will be used to update the TRM as well as for use in program implementation.

The process evaluation will participant and non-participant surveys supplemented by secondary research. From this, process recommendations for the improvement of individual programs and for the portfolio overall will be provided.

Avista will provide The Cadmus Group full access to DSM records, consistent with customer confidentiality requirements. Also to retain the independent nature of the evaluation, Avista has chosen to not recommend EM&V methodologies, or methodologies for the extrapolation of the sample to the overall portfolio results, sampling strategies or suggested program exclusion from detailed review within this process.

#### Why was it chosen to be internal or external?

Order No. 4 in Docket No. UG-060518 requires an external evaluation on annual natural gas acquisition.

#### What went into this budget approximation?

Avista worked with The Cadmus Group to develop this \$200,000 estimated budget beginning with an approximation of the number of anticipated sites that might participate in Avista's programs in a given year as well as what portion of those were estimated to receive site visits

#### **Brief Description**

This is an overall evaluation of the natural gas portfolio resulting in an independent estimate of portfolio-wide energy savings. The evaluation will also develop recommendations for process improvements based upon primary data collection, an analysis of secondary sources, and integration of the results from related studies being conducted during this program cycle.

#### **Evaluation Objectives**

The final product will be an independent estimate of natural gas portfolio acquisition for the calendar year 2011. Process evaluation will be performed, in particular, to identify potential areas for program improvement and/or innovation. Where appropriate, the findings of the impact evaluation portion of this study will effect Avista's DSM operations through revisions to the Technical Reference Manual used for program implementation purposes and tracking databases.

#### **Evaluation Approach**

Methodologies, sample selection and evaluation requirements are intentionally left to the independent verifier.

#### Timeline

Work related to this task began during 2011 with an estimated completion date of May 2012.

## **Evaluation of Non-Residential Calculators (External Process Evaluation)**

#### Why was this selected for Evaluation?

Many of the Company's non-residential programs are supported through calculators that generate estimated savings and incentives for various prescriptive (or in some cases, semi-prescriptive – abbreviated approach) programs. While much effort has gone into the verification of the *ex ante* savings estimates within Avista's TRM, additional examination of the non-residential calculators is necessary to ensure consistency in assumptions in program implementation. This effort would ensure that all calculators would be reviewed and updated for consistency with the assumptions within the TRM.

#### Why was it chosen to be internal or external?

The Company would benefit from an external review to ensure consistency with Avista's TRM assumptions.

#### What went into this budget approximation?

The \$20,000 budget estimate was based upon the anticipated number of billable hours required for The Cadmus Group to conduct this body of work. Avista is engaging The Cadmus Group due to its familiarity with the Company's TRM.

#### **Brief Program Description**

The Company has various non-residential prescriptive offerings such as Prescriptive Green Motors, Prescriptive PC Network Controls, Prescriptive Clothes Washers, Prescriptive Food Service, Prescriptive Lighting, Prescriptive Motors, Prescriptive Variable Frequency Drives, Prescriptive Windows/Insulation, Prescriptive Heating Cooling and Ventilation and Prescriptive Standby Generator Block Heater. In addition, some measure offerings handled through site-specific used standardized calculators. These standardized calculators are used to calculate estimated savings and incentives relative to the specific parameters for each customer's activity.

#### **Evaluation Objectives**

The objective is to ensure consistency in assumptions and resulting savings estimates between the various non-residential calculators with the assumptions and unit energy savings within Avista's TRM. This will benefit all non-residential prescriptive programs and even some programs that have a standard protocol calculation process (e.g. similar savings estimate based on ranges of horse power, etc).

### **Evaluation Approach**

The evaluation approach will be based primarily upon consultant recommendations for effectively meeting the evaluation objectives.

#### **Timeline**

This project has an anticipated start date of December 2011 with an estimated completion by the May 2012.

## **CFL Direct Mail Distribution (External Impact Evaluation)**

#### Why was this selected for Evaluation?

The CFL Direct Mail distribution was a new distribution method for the Company and with little secondary data based on similarities with how Avista's was offered. This effort was launched with an established UES of 24 kWh per bulb distributed subject to impact results around delivery, breakage and other related findings.

#### Why was it chosen to be internal or external?

The Cadmus Group is in the process of evaluating Avista's 2011 electric and natural gas savings estimates so this additional delivery mechanism of CFLs was an addition to scope. Cadmus was included in the upfront development of this delivery mechanism in order to determine the appropriate evaluation strategy.

#### What went into this budget approximation?

The Cadmus Group provided an estimate of \$45,000 to conduct two series of surveys and other independent review specific to this delivery mechanism.

#### **Brief Description**

During the 2010-2011 compliance period for I-937 and upon the completion of the TRM review by The Cadmus Group, the Company determined it would be short of acquisition targets. Consequently, Avista launched this effort. Washington and Idaho electric residential and small commercial customers were given the opportunity to opt-out of the distribution. Customers who didn't opt-out, received a box of eight CFLs along with educational materials, and the opportunity to return the bulbs to Avista at no cost to the customer.

#### **Evaluation Objectives**

The objective is to provide a UES for Avista's CFLs distributed through direct mail on an opt-out basis considering breakage, specifics on location and rate of installations and other related findings.

## **Evaluation Approach**

The evaluation approach will be based primarily upon consultant recommendations for effectively meeting the evaluation objectives.

### **Timeline**

The first round of customer surveys will begin in November 2011 with a second round to be conducted in Spring 2012. Final results will be complete by May 2012.

# Natural Gas Conservation Potential Assessment (External Market Evaluation)

#### Why was this selected for Evaluation?

An external Conservation Potential Assessment (CPA) was identified as an action item as part of previous natural gas Integrate Resource Plan (IRP) filings. The natural gas CPA was originally scheduled to occur in 2011; however, the filing dates were amended in order to alternate filing years for the electric and natural gas IRPs. Therefore, the natural gas CPA will occur in 2012. Avista has historically performed an internal evaluation leading to the development of a conservation supply curve.

#### Why was it chosen to be internal or external?

Avista's natural gas decoupling and I-937 processes indicate the appropriateness of an external CPA. In 2010, Global Energy Partners was selected to conduct this work.

#### What went into this budget approximation?

Based on the level of effort applied to the recent electric CPA, the total budget for the natural gas CPAs is \$150,000.

#### **Brief Description**

The CPA is an evaluation of a multitude of potential efficiency measures. Cost characteristics, energy savings and market potentials are examined for each measure. Based upon these factors a conservation supply curve is constructed, cost-effective measures are selected and an estimate of aggregate portfolio acquisition is completed. This information is subsequently evaluated in greater detail and incorporated into operational planning as part of the annual DSM business plan. As with the electric CPA, the potential study will results in a Realistic Achievable Potential (RAP) and a Maximum Achievable Potential (MAP).

#### **Evaluation Objectives**

The objective is to establish a foundation for the identification of the cost-effective resource potential within Avista's service territory and to provide sufficient detail on those measures likely to be cost-effective to support a DSM business plan.

#### **Evaluation Approach**

Global will be relying upon a combination of pre-existing local and regional research regarding efficiency measures, Avista-specific costs and pre-existing market research coupled with census data to develop the conservation supply curve. The use of pre-existing information will be supplemented with Avista-specific data and expertise, and additional research by Global, as necessary.

#### **Timeline**

The anticipated start date is November 2011 with anticipated completion in February 2012.

# Non-Residential Marketing Research (External Market Evaluation)

#### Why was this selected for Evaluation?

Much effort has been dedicated to impact and process evaluations over the past several years, with less focus being directed toward market evaluation. However, with large increases expected in energy efficiency targets over the next decade, improved market knowledge will be important in order to achieve these targets.

#### Why was it chosen to be internal or external?

The Cadmus Group is in process of evaluating Avista's 2011 electric and natural gas offerings and this additional market research complements these on-going efforts.

#### What went into this budget approximation?

The Cadmus Group provided an estimate of \$17,000 to conduct this effort of work along with related surveys.

#### **Brief Program Description**

This market research will support targeting Avista's programs and fine tuning the Company's education and outreach efforts.

#### **Evaluation Objectives**

The objective is to identify and define DSM marketing information to our non-residential electric and natural gas customers in order to improve programs and better target programs to increase participation.

#### **Evaluation Approach**

The evaluation approach will be based primarily upon consultant recommendations for effectively meeting the evaluation objectives.

#### **Timeline**

This market research will begin January 2012 and will be completed by May 2012.

## **Non-Participant Spillover (External Impact Evaluation)**

#### Why was this selected for Evaluation?

During surveys conducted around 2010 programs, non-participant surveys indicated that there was a significant amount of non-participants installing energy efficiency measures that chose not to participate in Avista's programs. This is known as "spill over". This increased surveying will quantify the spillover impacts.

#### Why was it chosen to be internal or external?

The Cadmus Group is in process of evaluating Avista's 2011 electric and natural gas offerings. This effort was an addition to scope.

#### What went into this budget approximation?

The Cadmus Group provided an estimate of \$30,000 to conduct this effort along with the related surveys.

#### **Brief Program Description**

This activity will increase sampling and surveying sufficiently in order to quantify savings associated with the installation of energy efficiency measures installed within our service territory outside of our programs.

#### **Evaluation Objectives**

In an environment of I-937 penalties, capturing all savings occurring within our service territory has gained importance.

#### **Evaluation Approach**

The evaluation approach will be based primarily upon consultant recommendations for effectively meeting the evaluation objectives.

#### **Timeline**

The anticipated start date is December 2011 with an estimated completion date of June 2012.

## <u>Heat Pump Furnace Analysis (External Process and Market Evaluation)</u>

#### Why was this selected for Evaluation?

Recent billing analysis and survey data on 2010 programs indicates that a significant number of participants receive incentives for both heat pumps and natural gas furnaces used as a back-up system for extreme weather conditions. Based on these findings, The Cadmus Group had recommendation future research on this topic.

#### Why was it chosen to be internal or external?

The Cadmus Group is in process of evaluating Avista's 2011 electric and natural gas offerings and this effort complements the work already occurring.

#### What went into this budget approximation?

The Cadmus Group provided an estimate of \$15,000 to conduct this body of work related to heat pump furnaces.

#### **Brief Program Description**

With the increased participation in the heat pump program (with natural gas furnace back-ups for extreme weather), the importance of research regarding participants has increased so as to improve the program as currently offered.

#### **Evaluation Objectives**

The research would evaluate the following issues:

- Whether energy benefits from participants that receive multiple incentives are consistent with Avista's objectives. Specifically, determine whether it is cost-effective to incent customers to install heat pumps, natural gas furnaces and (in some cases) to also pay a conversion incentive.
- Whether incentives for natural gas furnaces are cost-effective in all cases or if some additional restrictions, such as minimum square footage requirements or use of other fuels, might improve the program.

#### **Evaluation Approach**

The evaluation approach will be based primarily upon consultant recommendations for effectively meeting the evaluation objectives.

## **Timeline**

This work is on-going as part of the impact and process evaluations already underway.

This increased research is anticipated to be completed by May 2012.

#### Appendix C

#### **DSM Program Plans**

Avista has completed implementation plans covering all programs with budgeted expenditures in 2012. A certain degree of aggregation of programs has been completed as part of the development of coherent packaging of measures and programs for customer-facing marketing purposes.

Ongoing optimization of these programs will continue. The optimization may include the termination of non-performing programs or the substantial redesign of others. Avista maintains an ongoing dialogue with the Advisory Group and substantial revisions to these programs will be communicated to those individuals. Avista will also file, for informational purposes, notification of any program launch or termination, change in eligibility or change in incentives with the WUTC and IPUC.

The expected acquisition, budget and cost-effectiveness for each of the programs contained within this appendix are reflected in Table 3 and Table 4 (acquisition), Table 13, Table 14 and Table 15 (budget) and Table 9 (cost-effectiveness). Information regarding the Avista EM&V strategy for the verification of the energy savings is contained within Appendix B.

The program plans contained within this Appendix and assigned program manager are as follows:

<u>Portfolio</u>	<u>Program</u>	Program Manager	Page #
Non-residential	Site-Specific	Greta Zink	C3
Non-residential	Psc Energy Smart Grocer	Greta Zink	C5
Non-residential	Psc Green Motors Rewind	Greta Zink	C8
Non-residential	Psc PC Network Controls	Greta Zink	C10
Non-residential	Psc Clothes Washer	Greta Zink	C11
Non-residential	Psc Commercial Food Service	Greta Zink	C13
Non-residential	Psc Lighting	Camille Martin	C21
Non-residential	Psc Premium Efficiency Motors	Greta Zink	C24
Non-residential	Psc Commercial Variable Freq. Drive	Greta Zink	C26
Non-residential	Psc Commercial Windows & Insulation	Greta Zink	C28
Non-residential	Psc Commercial Natural. Gas HVAC	Greta Zink	C30
Non-residential	Psc Standby Gen. Block Heater	Greta Zink	C32
Non-residential	Resource Conservation Manager	Camille Martin	C33
Res Home Improvement	Water Heater Equipment	Renee Coelho	C37
Res Home Improvement	Home Energy Audit	Joe Brabeck	C39
Res Home Improvement	Residential Lighting	Camille Martin	C41
Res Home Improvement	HVAC Conversion		
(	including electric to natural gas, central &		
	Ductless heat pumps)	Renee Coelho	C48
Res Home Improvement	High Efficiency HVAC Equipment		
	(incl. NG furnaces and boilers, ducted air		
	Source heat pumps, ductless heat pumps		
	And variable speed motors	Renee Coelho	C50
Res Home Improvement	Insulation	Renee Coelho	C52
Res Home Improvement	Fireplace Damper	Renee Coelho	C54
<b>Res New Construction</b>	Energy Star Homes	Renee Coelho	C56
<b>Res New Construction</b>	High Efficiency HVAC Equipment		
	(incl. NG furnaces and boilers, ducted air		
	Source heat pumps, ductless heat pumps		
	And variable speed motors	Renee Coelho	C58
<b>Res New Construction</b>	Water Heater Equipment Program	Renee Coelho	C60
<b>Res New Construction</b>	Res. Multifamily NG Mkt Transformation	Renee Coelho	C62
Res Appliances	Energy Efficient Appliance Program		
	(incl refrig., freezers, clothes washers		
	& refrig/freezer recycling)	Camille Martin	C64
Low Income	{All measures}	Renee Coelho	C67

#### Site Specific Program

Non-Residential Washington/Idaho Portfolio

#### Measures Incorporated within the Program:

All measures that show an energy efficiency savings of over a one year payback and under an eight year payback for lighting and a one year payback and under a thirteen year payback for other measures are eligible for the site specific program. The 2011 YTD data has shown an average of \$2.38 incentive per therm and a \$0.13 incentive per kWh.

#### Program Objectives:

This program is intended to prompt the customer to increase the energy efficiency of their commercial/ industrial building, processes or equipment with financial incentives.

#### Key Avista Staff:

The management of the program will be provided by Lorri Kirstein and Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customers in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with oversight by Tom Lienhard.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

#### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric and retail natural gas customers who are interested in saving energy in their business.

#### **Program Overview:**

The site specific program is a major component in our commercial/industrial portfolio. Customers receive technical assistance and incentives in accordance with Schedules 90/190. Our program approach allows us to have a very flexible response to any energy efficiency project that has demonstrable kWh and/or therm savings. The majority of site specific kWh and therm savings are comprised of appliances, compressed air, HVAC, industrial process, motors (non-prescriptive), shell measures and some custom lighting projects that don't fit the prescriptive path. This program is available to all non-residential retail electric and natural gas customers. The site specific program brings in the largest portion of savings to the overall energy efficiency portfolio.

#### Implementation Plan:

This program will offer an incentive for any energy saving measure that has over a one year and under an eight year payback for lighting and over a one year and under a thirteen year payback for other measures. The incentive typically covers a maximum of fifty percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that

customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

## Prescriptive Energy Smart Grocer Program Non-Residential Washington/Idaho Portfolio

Measures Incorporated within the Program:

Measure Name	Annual kWh Savings	Ince	entive	Unit	Incre	emental Cost
Case lighting - T10/12 Magnetic to Electronic Ballast - 5 ft	151	\$	15.00	Lamp	\$	31.00
Case lighting - T10/12 Magnetic to Electronic Ballast - 6 ft	108	\$	15.00	Lamp	\$	30.00
Case Lighting - T12 to LED <4W/FT, Retrofit w/o M.S.	154	\$	31.00	Linear Ft of LED	\$	31.80
Case Lighting - T-12 to LED 4W/FT <led<7.5w ft,="" m.s.<="" o="" retrofit="" td="" w=""><td>105</td><td>\$</td><td>21.00</td><td>Linear Ft of LED</td><td>\$</td><td>46.60</td></led<7.5w>	105	\$	21.00	Linear Ft of LED	\$	46.60
Case Lighting - T8 to LED <4W/FT, New w/o M.S.	104	\$	21.00	Linear Ft of LED	\$	12.60
Case Lighting - T8 to LED <4W/FT, Retrofit w/o M.S.	104	\$	21.00	Linear Ft of LED	\$	31.80
Case Lighting - T-8 to LED 4W/FT <led<7.5w ft,="" m.s.<="" new="" o="" td="" w=""><td>59</td><td>\$</td><td>12.00</td><td>Linear Ft of LED</td><td>\$</td><td>27.40</td></led<7.5w>	59	\$	12.00	Linear Ft of LED	\$	27.40
Case Lighting - T-8 to LED 4W/FT <led<7.5w ft,="" m.s.<="" o="" retrofit="" td="" w=""><td>59</td><td>\$</td><td>12.00</td><td>Linear Ft of LED</td><td>\$</td><td>46.60</td></led<7.5w>	59	\$	12.00	Linear Ft of LED	\$	46.60
Case lighting T-10/12 to T8, 4 ft	441	\$	30.00	Lamp	\$	87.00
Case lighting T-10/12 to T8, 5 ft	420	\$	30.00	Lamp	\$	87.00
Case lighting T-10/12 to T8, 6 ft	449	\$	30.00	Lamp	\$	87.00
LED w/ Motion Sensor <4W/FT	14	\$	1.00	Linear Ft of LED	\$	2.17
LED w/ Motion Sensor 4W/FT <led<7.5w ft<="" td=""><td>27</td><td>\$</td><td>2.00</td><td>Linear Ft of LED</td><td>\$</td><td>2.17</td></led<7.5w>	27	\$	2.00	Linear Ft of LED	\$	2.17
Open Case Lighting NEW, High Power LED	62	\$	8.00	In ft lamp	\$	19.22
Open Case Lighting NEW, Low Power LED	28	\$	3.50	In ft lamp	\$	15.98
Open Case Lighting RET, T12 to High Power LED	133	\$	17.00	In ft lamp	\$	43.58
Open Case Lighting RET, T12 to Low Power LED	65	\$	8.00	In ft lamp	\$	36.96
Open Case Lighting RET, T8 to High Power LED	81	\$	10.00	In ft lamp	\$	43.58
Open Case Lighting RET, T8 to Low Power LED	38	\$	5.00	In ft lamp	\$	36.96
Add Doors to Open Medium Temp Walk-in Reach-in	1,017	\$	130.00	Linear Ft of Case	\$	815.38
Cases - Low Temp Coffin to High Efficiency Reach-in	1,074	\$	55.00	Linear Ft	\$	937.00
Cases - Low Temp Open to Reach-in	1,674	\$	150.00	Linear Ft	\$	630.00
Cases - Low Temp Reach-in to High Efficiency Reach-in	963	\$	150.00	Linear Ft	\$	130.00
Cases - Medium Temp Open Case to New High Efficiency Open Case	222	\$	20.00	Linear Ft	\$	150.00
Cases - Medium Temp Open Case to New Reach In	585	\$	100.00	Linear Ft	\$	620.60
Special Doors with Low/No ASH for Low Temperature Reach-in	1,700	\$	200.00	Door	\$	173.25
Efficient Compressors - Low Temperature	798	\$	45.00	Ton	\$	132.00
Floating Head Pressure Control - Air Cooled	332	\$	60.00	HP	\$	72.00
Floating Head Pressure Control - Evap Cooled	708	\$	60.00	НР	\$	72.00
Floating Head Pressure Control w/ VFD- Air Cooled	915	\$	80.00	НР	\$	386.00
Floating Head Pressure for Single Compressor Systems, LT Condensing Unit	855	\$	100.00	Compressor HP	\$	270.76
Floating Head Pressure for Single Compressor Systems, LT Remote Condenser	685	\$	100.00	Compressor HP	\$	157.34
Floating Head Pressure for Single Compressor Systems, MT Condensing Unit	757	\$	100.00	Compressor HP	\$	307.51
Floating Head Pressure for Single Compressor Systems, MT Remote Condenser	473	\$	100.00	Compressor HP	\$	206.73
Multiplex - Compressors - Air-cooled Condenser	1,968	\$	300.00	Ton	\$	2,862.00
Multiplex - Compressors - Evaporative Condenser	1,821	\$	300.00	Ton	\$	3,432.00
Multiplex - Controls - Floating suction pressure - air cooled condenser	227	\$	15.00	НР	\$	26.64

Multiplex - Controls - Floating suction pressure - evaporative condenser	231	\$	15.00	НР	\$	26.64
Multiplex - Efficient/oversized Air-cooled Condenser for Multiplex	2,061	\$	110.00	Ton	\$	702.00
Multiplex - Efficient/oversized water-cooled Condenser for Multiplex	1,550	\$	110.00	Ton	\$	702.00
December Marshard district Controls	1.500		00.00	Ctll		112.00
Beverage Merchandising Controls  Controls Anti-Sugar host - Dedicated ASHC Daviso - Law Tomp	1,590 447	\$ \$	90.00	Controller Linear Ft	\$	112.00 40.00
Controls - Anti Sweat heat - Dedicated ASHC Device - Low Temp	447	Ş	50.00	Linear Ft	Ş	40.00
Controls - Anti Sweat heat - Dedicated ASHC Device - Med Temp	175	\$	40.00	Linear Ft	\$	40.00
Controls - Anti-Sweat Heat - Energy Management System - Low Temp	369	\$	14.00	Linear Ft	\$	40.00
Controls - Anti-Sweat Heat - Energy Management System - Med Temp	353	\$	14.00	Linear Ft	\$	40.00
Controls - Evaporator Fan	508	\$	75.00	Controller	\$	150.00
Controls - Visi Cooler, Direct Install	673	\$	90.00	Controller	\$	112.0
Evaporated Fan - Walk-In ECM Controller - Low Temp - 1/10-1/20 HP	207	\$	35.00	Motor Controlled	\$	129.00
Evaporated Fan - Walk-In ECM Controller - Medium Temp - 1/10-1/20 HP	264	\$	35.00	Motor Controlled	\$	129.00
Auto-Closers for Glass Reach-in Doors Coolers	373	\$	40.00	Closer	\$	34.19
Auto-Closers for Glass Reach-in Doors Freezers	591	\$	40.00	Closer	\$	34.19
Auto-Closers for Walk-in Coolers	241	\$	25.00	Closer	\$	170.94
Auto-Closers for Walk-in Freezers	2,806	\$	250.00	Closer	\$	170.94
Gaskets Reach In Low Temp	410	\$	40.00	Door	\$	91.4
Gaskets Reach In Medium Temp	273	\$	25.00	Door	\$	70.9
Gaskets Walk In Low Temp	662	\$	25.00	Door	\$	99.1
Gaskets Walk In Medium Temp	361	\$	65.00	Door	\$	67.52
Strip Curtains for Convenience Store Walk-in Freezers	33	\$	5.00	Square Ft	\$	9.77
Strip Curtains for Convenience Store Walk-in Freezers	33	\$	10.00	Square Ft	\$	10.0
Strip Curtains for Restaurant Walk-in Freezers	134	\$	5.00	Square Ft	\$	9.77
Strip Curtains for Restaurant Walk-in Freezers	134	\$	10.00	Square Ft	\$	10.0
Strip Curtains for Supermarket Walk-in Coolers	103	\$	5.00	Square Ft	\$	9.77
Strip Curtains for Supermarket Walk-in Coolers	103	\$	10.00	Square Ft	\$	10.0
Strip Curtains for Supermarket Walk-in Freezers	443	\$	5.00	Square Ft	\$	9.77
Strip Curtains for Supermarket Walk-in Freezers	443	\$	10.00	Square Ft	\$	10.0
Gas - Domestic Hot Water Heat Reclaim	12,412	\$	1,710.00	Unit	\$	4,800.00
Lighting - 27 W CFL lamps in Walk-in, Direct install	671	\$	5.34	Lamp	\$	4.25
ECMs for Compressor Head Fans	776	\$	80.00	Motor	\$	62.00
Evap motors – shaded pole to PSC in walk-ins	509	\$	40.00	Motor	\$	64.96
Evap motors: shaded pole to ECM/SSC in Display Case	541	\$	55.00	Motor	\$	110.0
Motors: Shaded Pole to PSC in display cases	326	\$	25.00	Motor	\$	64.96
VFD - Condenser Fan Motors - Air Cooled	930	\$	100.00	HP	\$	250.00
VFD - Condenser Fan Motors - Evap Cooled	930	\$	100.00	HP	\$	250.00
Walk-in Evap motors: shaded pole to ECM/SSC	1,094	\$	140.00	Unit	\$	150.00
Cases - Night covers - horizontal display case	88	\$	10.00	Linear Ft	\$	30.00
Cases - Night covers - vertical display case	231	\$	22.00	Linear Ft	\$	30.00
Suction Line Insulation	20	\$	1.00	Linear Ft	\$	1.7

There are seventy seven measures for the EnergySmart program. The 2011 YTD data has shown an average of \$4,296 for incremental costs and 13,915 average kWh savings with a \$0.14 incentive per annual kWh. Incentives have averaged 45% of incremental costs.

#### **Program Objectives:**

This program is intended to prompt customers to increase the energy efficiency of their refrigerated cases and related grocery equipment through direct financial incentives.

#### **Key Avista Staff:**

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley and PECI, working with key trade allies and retailers in collaboration with PECI, performing outreach to key customer segments in collaboration with Account Executives and PECI, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program with PECI. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Mike Dillon.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

#### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric and retail natural gas customers who are retrofitting refrigeration equipment and lighting in the grocery, convenience store, and education sectors.

#### **Program Overview:**

This program helps customers with refrigeration loads to upgrade equipment and streamline operations to get the highest possible energy savings. Customers receive a complete energy analysis of the facility's refrigeration and lighting as well as a detailed report showing ways to reduce energy use. The customized report outlines potential energy savings, incentive amounts, retrofit costs and simple paybacks and is offered at no cost.

#### Implementation Plan:

This is a prescriptive program with seventy seven measures being offered, some measures paid at 100 percent. The average incentive covers forty five percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

#### Prescriptive Green Motors Rewind Program

Non-Residential Washington/Idaho Portfolio

#### Measures Incorporated within the Program:

Measure	<u>corporated v</u>	Incremental Cost					
НР	Deemed kWh savings	6 pole	4 pole	2 pole	Incentive per unit	Admin Fees per unit	Total Cost per unit
15	274	\$161	\$121	\$133	\$30	\$13.70	\$43.70
20	363	\$181	\$134	\$148	\$40	\$18.15	\$58.15
25	535	\$198	\$154	\$177	\$50	\$26.75	\$76.75
30	575	\$217	\$173	\$191	\$60	\$28.75	\$88.75
40	672	\$263	\$214	\$233	\$80	\$33.60	\$113.60
50	729	\$293	\$235	\$258	\$100	\$36.45	\$136.45
60	971	\$347	\$277	\$303	\$120	\$48.55	\$168.55
75	1,009	\$376	\$302	\$324	\$150	\$50.45	\$200.45
100	1,558	\$463	\$376	\$404	\$200	\$77.90	\$277.90
125	1,891	\$500	\$438	\$458	\$250	\$94.55	\$344.55
150	2,254	\$557	\$478	\$520	\$300	\$112.70	\$412.70
200	2,987	\$672	\$569	\$631	\$400	\$149.35	\$549.35
250	4,397	\$848	\$762	\$796	\$500	\$219.85	\$719.85
300	5,269	\$880	\$744	\$808	\$600	\$263.45	\$863.45
350	6,147	\$918	\$781	\$850	\$700	\$307.35	\$1,007.35
400	7,005	\$998	\$865	\$984	\$800	\$350.25	\$1,150.25
450	7,859	\$1,070	\$954	\$1,088	\$900	\$392.95	\$1,292.95
500	8,732	\$1,191	\$1,041	\$1,130	\$1,000	\$436.60	\$1,436.60

#### **Program Objectives:**

This program is intended to prompt customers to increase the energy efficiency of their motors through direct financial incentives. The 2011 YTD data has shown an average of \$260 for incremental costs and 996 kWh savings per project with a \$0.11 incentive per kWh.

#### Key Avista Staff:

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley and Green Motors Initiative, working with key trade allies and retailers in collaboration with Green Motors Initiative, performing outreach to key customer segments in collaboration with Account Executives and Green Motors Initiative, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Levi Westra.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

#### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric customers who are rewinding motors.

#### **Program Overview:**

A bad repair/rewind can adversely affect all motor characteristics, reducing efficiency and reliability. The green motors initiative ensures quality rewinding that result in the motor maintaining its original efficiency.

#### Implementation Plan:

This is a prescriptive program with eighteen measures being offered. The incentive typically covers a third of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

#### Prescriptive Power Management for PC Networks Program

Non-Residential Washington/Idaho Portfolio

#### Measures Incorporated within the Program:

There is one measure of \$10 incentive per controlled PC by Power Management Software. The 2011 YTD data has shown an average of \$3,745 for incremental costs and 32,700 for kWh savings with a \$0.10 incentive per kWh.

#### **Program Objectives:**

This program is intended to prompt customers to increase the energy efficiency of their computer equipment through direct financial incentives.

#### **Key Avista Staff:**

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Tom Lienhard.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

#### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric customers who are interested in saving energy with their networked computer equipment.

#### Program Overview:

Despite the fact that most personal computers (PC's) have the capability to shift to a low-power operating state after a specified period of inactivity, only a small fraction of those PC's actually do. For companies that have numerous PC's, the wasted energy from computers that remain in the full-power on state even when they are idle can be significant. Software products that can simplify the process of implementing power management in large numbers of networked PC's are now available.

#### **Implementation Plan**:

This is a prescriptive program with one measure being offered. The incentive typically covers eighty percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

#### Prescriptive Commercial Clothes Washer Program

Non-Residential Washington/Idaho Portfolio

#### Measures Incorporated within the Program:

New Equipment Upgrades	kWh Savings	Therm Savings	Inc Cost	Rebate
Energy Star clothes washer - elect. H.W.& dryer	1,025.14	0.00	370	200
CEE Tier 1 clothes washer - elect. H.W.& dryer	1,025.14	0.00	370	200
CEE Tier 2 clothes washer - elect. H.W.& dryer	1,264.34	0.00	1120	200
CEE Tier 3 clothes washer - elect. H.W.& dryer	1,460.05	0.00	1420	200
Energy Star clothes washer - elect. H.W.& gas dryer	629.44	13.51	370	200
CEE Tier 1 clothes washer - elect. H.W.& gas dryer	629.44	13.51	370	200
CEE Tier 2 clothes washer - elect. H.W.& gas dryer	776.31	16.66	1120	200
CEE Tier 3 clothes washer - elect. H.W.& gas dryer	896.47	19.23	1420	200
Energy Star clothes washer - gas H.W.& elect. dryer	609.96	11.62	370	200
CEE Tier 1 clothes washer - gas H.W.& elect. dryer	609.96	11.62	370	200
CEE Tier 2 clothes washer - gas H.W.& elect. dryer	752.28	14.33	1120	200
CEE Tier 3 clothes washer - gas H.W.& elect. dryer	868.73	16.55	1420	200
Energy Star clothes washer - gas H.W.& dryer	214.25	25.12	370	200
CEE Tier 1 clothes washer - gas H.W.& dryer	214.25	25.12	370	200
CEE Tier 2 clothes washer - gas H.W.& dryer	264.25	30.99	1120	200
CEE Tier 3 clothes washer - gas H.W.& dryer	305.15	35.78	1420	200

The 2011 YTD data has shown an average of \$4,172 for incremental costs, 1,258 average kWh savings and 105 average Therm savings with a \$0.15 incentive per kWh and \$4.52 incentives per therm.

#### **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their clothes washing equipment through direct financial incentives.

#### Key Avista Staff:

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Tom Lienhard.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

#### Target Market(s):

This market focuses exclusively upon penetration of the non-residential retail natural gas and electric customers who are installing or replacing high efficient commercial clothes washers.

#### **Program Overview:**

High efficiency commercial washers can save up to 50 percent of energy costs and use about 30 percent less water. They also extract more moisture from clothes during the spin cycle which reduces drying time and wear and tear on clothing.

#### Implementation Plan:

This is a prescriptive program with one measure being offered. The incentive typically covers sixteen percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

## Prescriptive Commercial Food Service Equipment Program

## Non-Residential Washington/Idaho Portfolio

### Measures Incorporated within the Program:

	kWh	Therm		
New Equipment Upgrades	Savings	Savings	Inc Cost	Rebate
Energy Star 50% effic.gas fryer	0.00	505.00	2,500.00	500
Energy Star 80% effic. electric fryer	1,166.00	0.00	500.00	150
Energy Star 38% effic. 3-pan gas steam cooker	0.00	1,042.00	1,867.00	500
Energy Star 38% effic. 4-pan gas steam cooker	0.00	1,389.00	2,489.00	540
Energy Star 38% effic. 5-pan gas steam cooker Energy Star 38% effic. 6-pan gas steam cooker	0.00	1,737.00	3,111.00	590
	0.00	2,084.00	3,733.00	630
Energy Star 50% effic. 3-pan electric steam cooker	3,748.52	0.00	975.00	450
Energy Star 50% effic. 4-pan electric steam cooker	4,916.15	0.00	1,125.00	570
Energy Star 50% effic. 5-pan electric steam cooker				640
Energy Star 50% effic. 6-pan electric steam cooker	6,144.38	0.00	1,275.00	640
Energy Star electric hot food holding cabinet, over 18 cu.ft.	7,303.48	0.00	1,425.00	720
Energy Star electric hot food holding cabinet, between 12 & 18 cu.ft.	2,628.00	0.00	1,200.00	500
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Energy Star electric hot food holding cabinet, 12 cu.ft. or less	1,971.00	0.00	1,200.00	400
	1,314.00	0.00	1,200.00	300
Energy Star refrigerator, solid 1 door	2,567.41	0.00	195.75	50
Energy Star refrigerator, solid 2 door	2,901.75	0.00	267.30	70
Energy Star refrigerator, solid 3 door	3,257.99	0.00	365.85	90
Energy Star freezer, solid 1 door	2,527.26	0.00	256.50	70
Energy Star freezer, solid 2 door	3,468.96	0.00	351.00	110
Energy Star freezer, solid 3 door	4,734.78	0.00	484.65	140
Energy Star refrigerator, glass 1 door	1,729.02	0.00	200.00	50
Energy Star refrigerator, glass 2 door	2,516.19	0.00	300.00	80
Energy Star refrigerator, glass 3 door  Vent hood variable speed control, gas space heat	3,257.27	0.00	400.00	100
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.00	292.68	1,297.60	650
Vent hood variable speed control, electric space heat	7,310.22	0.00	1,297.60	650
Vent hood variable speed control, electric space heat w/ Make-Up Air Ctrl				
Vent hood variable speed control, natural gas space heat w/ Make-Up Air Ctrl	1,500.00	0.00	3,000.00	650
vent hood variable speed control, natural gas space heat wy wrake-op Air Cth				
Vent hood dedicated makeup air unit (MAU) variable speed control	0.00	500.00	3,000.00	650
	624.00	0.00	1,589.00	130
H.E. gas convection oven, 40% effic. or better H.E. electric convection oven, 70% effic. or better	0.00	323.00	1,886.00	500
decade convection every 70% erric. or settler	2,262.00	0.00	2,000.00	400
H.E. gas combination oven, 40% effic. or better	0.00	403.00	5,717.00	1000
H.E. electric combination oven, 60% effic. or better	18,431.00	0.00	2,000.00	1000
H.E. gas rack oven, 50% effic. or better	0.00	1,034.00	4,933.00	1000

CEE Tier 2 ice maker, air cooled, ice making head, under 200 lbs./day capacity	1,106.89	0.00	128.76	100
CEE Tier 2 ice maker, air cooled, ice making head, 201 to 300 lbs./day capacity	968.28	0.00	147.64	125
CEE Tier 2 ice maker, air cooled, ice making head, 301 to 400 lbs./day capacity	693.91	0.00	166.52	125
CEE Tier 2 ice maker, air cooled, ice making head, 401 to 500 lbs./day capacity	1,048.64	0.00	185.40	125
CEE Tier 2 ice maker, air cooled, ice making head, 501 to 1000 lbs./day capacity	873.67	0.00	204.28	125
CEE Tier 2 ice maker, air cooled, ice making head, 1001 to 1500 lbs./day capacity	1,745.60	0.00	298.68	200
CEE Tier 2 ice maker, air cooled, ice making head, over 1500 lbs./day capacity	3,053.41	0.00	393.08	380
CEE Tier 2 ice maker, water cooled, ice making head, under 300 lbs./day capacity	551.89	0.00	147.64	125
CEE Tier 2 ice maker, water cooled, ice making head, 301 to 400 lbs./day capacity	426.13	0.00	166.52	125
CEE Tier 2 ice maker, water cooled, ice making head, 401 to 500 lbs./day capacity	858.82	0.00	185.40	125
CEE Tier 2 ice maker, water cooled, ice making head, 501 to 1000 lbs./day capacity	581.23	0.00	204.28	125
CEE Tier 2 ice maker, water cooled, ice making head, 1001 to 1500 lbs./day capacity	1,373.51	0.00	298.68	200
CEE Tier 2 ice maker, water cooled, ice making head, over 1500 lbs./day capacity	2,223.04	0.00	393.08	380
CEE Tier 2 ice maker, air cooled, self contained, 200 lbs./day capacity & under	903.58	0.00	142.73	100
CEE Tier 2 ice maker, water cooled, self contained, 200 lbs./day capacity & under	351.63	0.00	128.76	100
CEE Tier 2 ice maker, water cooled, self contained, over 200 lbs./day capacity	553.94	0.00	147.64	125
CEE Tier 2 ice maker, air cooled, remote condensing, 400 lbs./day capacity & under	1,119.51	0.00	166.52	125
CEE Tier 2 ice maker, air cooled, remote condensing, 401 to 500 lbs./day capacity	939.46	0.00	185.40	125
CEE Tier 2 ice maker, air cooled, remote condensing, 501 to 1000 lbs./day capacity	741.64	0.00	204.28	125
CEE Tier 2 ice maker, air cooled, remote condensing, 1001 to 1500 lbs./day capacity	2,002.86	0.00	298.68	200
CEE Tier 2 ice maker, air cooled, remote condensing, over 1500 lbs./day capacity	3,517.64	0.00	393.08	380
CEE Tier 3 ice maker, air cooled, ice making head, under 200 lbs./day capacity	1,175.75	0.00	257.52	200
CEE Tier 3 ice maker, air cooled, ice making head, 201 to 300 lbs./day capacity	1,093.66	0.00	295.28	200
CEE Tier 3 ice maker, air cooled, ice making head, 301 to 400 lbs./day capacity	864.18	0.00	333.04	200

CEE Tier 3 ice maker, air cooled, ice making head, 401 to 500 lbs./day capacity	1,223.25	0.00	370.80	200
CEE Tier 3 ice maker, air cooled, ice making head, 501 to 1000 lbs./day capacity	1,084.56	0.00	408.56	200
CEE Tier 3 ice maker, air cooled, ice making head, 1001 to 1500 lbs./day capacity	2,094.28	0.00	597.36	300
CEE Tier 3 ice maker, air cooled, ice making head, over 1500 lbs./day capacity	3,467.29	0.00	786.16	500
CEE Tier 3 ice maker, water cooled, ice making head, under 300 lbs./day capacity	648.12	0.00	295.28	200
CEE Tier 3 ice maker, water cooled, ice making head, 301 to 400 lbs./day capacity	557.11	0.00	333.04	200
CEE Tier 3 ice maker, water cooled, ice making head, 401 to 500 lbs./day capacity	1,015.86	0.00	370.80	200
CEE Tier 3 ice maker, water cooled, ice making head, 501 to 1000 lbs./day capacity	828.50	0.00	408.56	200
CEE Tier 3 ice maker, water cooled, ice making head, 1001 to 1500 lbs./day capacity	1,794.87	0.00	597.36	300
CEE Tier 3 ice maker, water cooled, ice making head, over 1500 lbs./day capacity	2,876.88	0.00	786.16	500
CEE Tier 3 ice maker, air cooled, self contained, 200 lbs./day capacity & under	1,094.79	0.00	285.46	200
CEE Tier 3 ice maker, water cooled, self contained, 200 lbs./day capacity & under	462.86	0.00	257.52	200
CEE Tier 3 ice maker, water cooled, self contained, over 200 lbs./day capacity	731.96	0.00	295.28	200
CEE Tier 3 ice maker, air cooled, remote condensing, 400 lbs./day capacity & under	1,311.68	0.00	333.04	200
CEE Tier 3 ice maker, air cooled, remote condensing, 401 to 500 lbs./day capacity	1,178.01	0.00	370.80	200
CEE Tier 3 ice maker, air cooled, remote condensing, 501 to 1000 lbs./day capacity	1,017.85	0.00	408.56	200
CEE Tier 3 ice maker, air cooled, remote condensing, 1001 to 1500 lbs./day capacity	2,438.89	0.00	597.36	300
CEE Tier 3 ice maker, air cooled, remote condensing, over 1500 lbs./day capacity	4,171.47	0.00	786.16	500
H.E. gas griddle, 40% effic. or better	0.00	88.00	491.00	250
H.E. electric griddle, 70% effic. or better	1,636.00	0.00	1,000.00	250
Energy Star dishwasher Under Counter, Low Temp - elect. bldg. H.W.& booster H.W.	1,196.21	0.00	1,000.00	250
Energy Star dishwasher Under Counter, High Temp - elect. bldg. H.W.& booster H.W.	7,368.68	0.00	1,000.00	250
Energy Star dishwasher Door Type, Low Temp - elect. bldg. H.W.& booster H.W.	11,968.51	0.00	2,000.00	1000
Energy Star dishwasher Door Type, High Temp - elect. bldg. H.W.& booster H.W.	13,949.74	0.00	2,100.00	1000
Energy Star dishwasher Single Tank Conveyor, Low Temp - elect. bldg. H.W.& booster H.W. Energy Star dishwasher Single Tank Conveyor, High Temp - elect. bldg. H.W.& booster	11,228.46	0.00	3,000.00	1500
H.W.	18,971.70	0.00	3,000.00	1500
Energy Star dishwasher Multi Tank Conveyor, Low Temp - elect. bldg. H.W.& booster H.W.	17,225.47	0.00	4,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - elect. bldg. H.W.& booster H.W.	33,685.37	0.00	4,000.00	2000

Energy Star dishwasher Under Counter, Low Temp - gas bldg. H.W.& elec. booster H.W.	0.00	55.41	1,000.00	250
Energy Star dishwasher Under Counter, High Temp - gas bldg. H.W.& elec. booster H.W.	2,679.52	217.20	1,000.00	250
Energy Star dishwasher Door Type, Low Temp - gas bldg. H.W.& elec. booster H.W.	0.00	554.37	2,000.00	1000
Energy Star dishwasher Door Type, High Temp - gas bldg. H.W.& elec. booster H.W. Energy Star dishwasher Single Tank Conveyor, Low Temp - gas bldg. H.W.& elec. booster	5,196.65	405.44	2,100.00	1000
H.W.  Energy Star dishwasher Single Tank Conveyor, High Temp - gas bldg. H.W.& elec. booster	0.00	520.09	3,000.00	1500
H.W. Energy Star dishwasher Multi Tank Conveyor, Low Temp - gas bldg. H.W.& elec. booster	7,998.44	508.27	3,000.00	1500
H.W.	0.00	797.87	4,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - gas bldg. H.W.& elec. booster H.W.	12,249.23	992.91	4,000.00	2000
Energy Star dishwasher Under Counter, Low Temp - elec. bldg. H.W.& gas booster H.W.	1,196.21	0.00	1,000.00	250
Energy Star dishwasher Under Counter, High Temp - elec. bldg. H.W.& gas booster H.W.	4,689.16	108.60	1,000.00	250
Energy Star dishwasher Door Type, Low Temp - elec. bldg. H.W.& gas booster H.W.	11,968.51	0.00	2,000.00	1000
Energy Star dishwasher Door Type, High Temp - elec. bldg. H.W.& gas booster H.W. Energy Star dishwasher Single Tank Conveyor, Low Temp - elec. bldg. H.W.& gas booster	8,947.97	202.72	2,100.00	1000
H.W.  Energy Star dishwasher Single Tank Conveyor, High Temp - elec. bldg. H.W.& gas booster	11,228.46	0.00	3,000.00	1500
H.W. Energy Star dishwasher Multi Tank Conveyor, Low Temp - elec. bldg. H.W.& gas booster	12,701.27	254.14	3,000.00	1500
H.W.	17,225.47	0.00	4,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - elec. bldg. H.W.& gas booster H.W.	21,436.15	496.45	4,000.00	2000
Energy Star dishwasher Under Counter, Low Temp - gas bldg. H.W.& booster H.W.	0.00	55.41	1,000.00	250
Energy Star dishwasher Under Counter, High Temp - gas bldg. H.W.& booster H.W.	0.00	325.80	1,000.00	250
Energy Star dishwasher Door Type, Low Temp - gas bldg. H.W.& booster H.W.	0.00	554.37	2,000.00	1000
Energy Star dishwasher Door Type, High Temp - gas bldg. H.W.& booster H.W.	194.88	608.16	2,100.00	1000
Energy Star dishwasher Single Tank Conveyor, Low Temp - gas bldg. H.W.& booster H.W.	0.00	520.09	3,000.00	1500
Energy Star dishwasher Single Tank Conveyor, High Temp - gas bldg. H.W.& booster H.W.	1,728.00	762.41	3,000.00	1500
Energy Star dishwasher Multi Tank Conveyor, Low Temp - gas bldg. H.W.& booster H.W.	0.00	797.87	4,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - gas bldg. H.W.& booster H.W.	0.00	1,489.36	4,000.00	2000
Retrofit Equipment Upgrades	kWh Savings	Therm Savings	Inc Cost	Rebate
Energy Star 50% effic.gas fryer	0.00	505.00	3,500.00	500
Energy Star 80% effic. electric fryer	1,166.00	0.00	3,000.00	150
Energy Star 38% effic. 3-pan gas steam cooker	0.00	1,042.00	6,500.00	500
Energy Star 38% effic. 4-pan gas steam cooker	0.00	1,389.00	7,500.00	540
Energy Star 38% effic. 5-pan gas steam cooker	0.00	1,737.00	8,500.00	590
Energy Star 38% effic. 6-pan gas steam cooker	0.00	2,084.00	9,500.00	630
Energy Star 50% effic. 3-pan electric steam cooker	4,123.37	0.00	6,500.00	450
Energy Star 50% effic. 4-pan electric steam cooker	5,407.76	0.00	7,500.00	570
Energy Star 50% effic. 5-pan electric steam cooker	6,758.82	0.00	8,500.00	640
Energy Star 50% effic. 6-pan electric steam cooker Energy Star electric hot food holding cabinet, over 18 cu.ft.	8,033.82	0.00	9,500.00	720
Energy Star electric hot food holding cabinet, between 12 & 18 cu.ft.	2,890.80	0.00	3,000.00	500
Engray Star electric hat food holding cabinat 12 out to a less	2,168.10	0.00	3,000.00	400
Energy Star electric hot food holding cabinet, 12 cu.ft. or less	1,445.40	0.00	3,000.00	300
Energy Star refrigerator, solid 1 door	605.50	0.00	1,544.25	50

Energy Star refrigerator, solid 2 door	864.65	0.00	2,108.70	70
Energy Star refrigerator, solid 3 door	1,069.05	0.00	2,886.15	90
Energy Star freezer, solid 1 door	1,383.35	0.00	2,023.50	70
Energy Star freezer, solid 2 door	1,383.35	0.00	2,769.00	110
Energy Star freezer, solid 3 door	1,383.35	0.00	3,823.35	140
Energy Star refrigerator, glass 1 door	1,126.62	0.00	1,500.00	50
Energy Star refrigerator, glass 2 door	1,629.60	0.00	2,070.00	80
Energy Star refrigerator, glass 3 door	2,067.88	0.00	2,830.00	100
Vent hood variable speed control, gas space heat Vent hood variable speed control, electric space heat	878.64	292.68	2,160.32	650
Vent hood variable speed control, electric space heat w/ Make-Up Air Ctrl	7,310.22	0.00	2,160.32	650
Vent hood variable speed control, natrual gas space heat w/ Make-Up Air Ctrl	1,500.00	0.00	2,500.00	650
Vent hood dedicated makeup air unit (MAU) variable speed control	0.00	500.00	2,500.00	650
	624.00	0.00	1,589.00	130
H.E. gas convection oven, 40% effic. or better H.E. electric convection oven, 70% effic. or better	0.00	323.00	5,762.00	500
	2,262.00	0.00	6,000.00	400
H.E. gas combination oven, 40% effic. or better H.E. electric combination oven, 60% effic. or better	0.00	403.00	17,018.00	1000
The electric combination over, 60% effic. of better	18,431.00	0.00	17,000.00	1000
H.E. gas rack oven, 50% effic. or better CEE Tier 2 ice maker, air cooled, ice making head, under 200 lbs./day capacity	0.00	1,034.00	8,007.00	1000
CEE Tier 2 ice maker, air cooled, ice making head, 201 to 300 lbs./day capacity	1,217.57	0.00	840.81	100
CEE Tier 2 ice maker, air cooled, ice making head, 301 to 400 lbs./day capacity	1,065.11	0.00	1,564.69	125
CEE Tier 2 ice maker, air cooled, ice making head, 401 to 500 lbs./day capacity	763.30	0.00	2,288.57	125
CEE Tier 2 ice maker, air cooled, ice making head, 501 to 1000 lbs./day capacity	1,153.50	0.00	3,012.45	125
CEE Tier 2 ice maker, air cooled, ice making head, 1001 to 1500 lbs./day capacity	961.04	0.00	2,148.16	125
CEE Tier 2 ice maker, air cooled, ice making head, over 1500 lbs./day capacity	1,920.16	0.00	4,182.56	200
CEE Tier 2 ice maker, water cooled, ice making head, under 300 lbs./day capacity	3,358.75	0.00	6,216.96	380
CEE Tier 2 ice maker, water cooled, ice making head, 301 to 400 lbs./day capacity	607.08	0.00	927.52	125
CEE Tier 2 ice maker, water cooled, ice making head, 401 to 500 lbs./day capacity	468.74	0.00	1,334.40	125
CEE Tier 2 ice maker, water cooled, ice making head, 501 to 1000 lbs./day capacity	944.70	0.00	1,741.28	125
CEE Tier 2 ice maker, water cooled, ice making head, 1001 to 1500 lbs./day capacity	639.36	0.00	2,148.16	125
	1,510.86	0.00	4,182.56	200

CEE Tier 2 ice maker, water cooled, ice making head, over 1500 lbs./day capacity				
CEE Tier 2 ice maker, air cooled, self contained, 200 lbs./day capacity & under	2,445.35	0.00	4,625.90	380
CEE Tier 2 ice maker, water cooled, self contained, 200 lbs./day capacity & under	993.94	0.00	1,875.23	100
CEE Tier 2 ice maker, water cooled, self contained, over 200 lbs./day capacity	386.79	0.00	845.86	100
CEE Tier 2 ice maker, air cooled, remote condensing, 400 lbs./day capacity & under	609.33	0.00	1,574.74	125
CEE Tier 2 ice maker, air cooled, remote condensing, 401 to 500 lbs./day capacity	1,231.46	0.00	1,307.31	125
CEE Tier 2 ice maker, air cooled, remote condensing, 501 to 1000 lbs./day capacity	1,033.41	0.00	1,705.19	125
CEE Tier 2 ice maker, air cooled, remote condensing, 1001 to 1500 lbs./day capacity	815.80	0.00	2,103.07	125
CEE Tier 2 ice maker, air cooled, remote condensing, over 1500 lbs./day capacity	2,203.14	0.00	3,271.65	200
CEE Tier 3 ice maker, air cooled, ice making head, under 200 lbs./day capacity	3,869.40	0.00	4,851.05	380
CEE Tier 3 ice maker, air cooled, ice making head, 201 to 300 lbs./day capacity	1,293.33	0.00	969.57	200
CEE Tier 3 ice maker, air cooled, ice making head, 301 to 400 lbs./day capacity	1,203.02	0.00	1,712.33	200
CEE Tier 3 ice maker, air cooled, ice making head, 401 to 500 lbs./day capacity	950.60	0.00	2,455.09	200
CEE Tier 3 ice maker, air cooled, ice making head, 501 to 1000 lbs./day capacity	1,345.58	0.00	3,197.85	200
CEE Tier 3 ice maker, air cooled, ice making head, 1001 to 1500 lbs./day capacity	1,193.01	0.00	2,352.44	200
CEE Tier 3 ice maker, air cooled, ice making head, over 1500 lbs./day capacity	2,303.71	0.00	4,481.24	300
CEE Tier 3 ice maker, water cooled, ice making head, under 300 lbs./day capacity	3,814.02	0.00	6,610.04	500
CEE Tier 3 ice maker, water cooled, ice making head, 301 to 400 lbs./day capacity	712.93	0.00	1,075.16	200
CEE Tier 3 ice maker, water cooled, ice making head, 401 to 500 lbs./day capacity	612.82	0.00	1,500.92	200
CEE Tier 3 ice maker, water cooled, ice making head, 501 to 1000 lbs./day capacity	1,117.44	0.00	1,926.68	200
CEE Tier 3 ice maker, water cooled, ice making head, 1001 to 1500 lbs./day capacity	911.34	0.00	2,352.44	200
CEE Tier 3 ice maker, water cooled, ice making head, over 1500 lbs./day capacity	1,974.35	0.00	4,481.24	300
CEE Tier 3 ice maker, air cooled, self contained, 200 lbs./day capacity & under	3,164.56	0.00	5,018.98	500
CEE Tier 3 ice maker, water cooled, self contained, 200 lbs./day capacity & under	1,204.27	0.00	2,017.96	200
	509.15	0.00	974.62	200

CEE Tier 3 ice maker, water cooled, self contained, over 200 lbs./day capacity				
CEE Tier 3 ice maker, air cooled, remote condensing, 400 lbs./day capacity & under	805.16	0.00	1,722.38	200
	1,442.85	0.00	1,473.83	200
CEE Tier 3 ice maker, air cooled, remote condensing, 401 to 500 lbs./day capacity	,		,	
CEE Tier 3 ice maker, air cooled, remote condensing, 501 to 1000 lbs./day capacity	1,295.81	0.00	1,890.59	200
CEE Her 5 ice maker, an cooled, remote condensing, 501 to 1000 lbs./day capacity				
CEE Tier 3 ice maker, air cooled, remote condensing, 1001 to 1500 lbs./day capacity	1,119.64	0.00	2,307.35	200
	2,682.78	0.00	3,570.33	300
CEE Tier 3 ice maker, air cooled, remote condensing, over 1500 lbs./day capacity				
	4,588.62	0.00	5,244.13	500
H.E. gas griddle, 40% effic. or better	0.00	88.00	3,860.67	250
H.E. electric griddle, 70% effic. or better	1,636.00	0.00	4,000.00	250
Energy Star dishwasher Under Counter, Low Temp - elect. bldg. H.W.& booster H.W.	1,315.83	0.00	5,800.00	250
Energy Star dishwasher Under Counter, High Temp - elect. bldg. H.W.& booster H.W.	8,105.54	0.00	6,000.00	250
Energy Star dishwasher Door Type, Low Temp - elect. bldg. H.W.& booster H.W.	13,165.37	0.00	8,500.00	1000
Energy Star dishwasher Door Type, High Temp - elect. bldg. H.W.& booster H.W.	15,344.71	0.00	9,000.00	1000
Energy Star dishwasher Single Tank Conveyor, Low Temp - elect. bldg. H.W.& booster H.W. Energy Star dishwasher Single Tank Conveyor, High Temp - elect. bldg. H.W.& booster	12,351.30	0.00	14,000.00	1500
H.W.	20,868.87	0.00	15,000.00	1500
Energy Star dishwasher Multi Tank Conveyor, Low Temp - elect. bldg. H.W.& booster H.W.	18,948.02	0.00	22,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - elect. bldg. H.W.& booster H.W.	37,053.91	0.00	24,000.00	2000
Energy Star dishwasher Under Counter, Low Temp - gas bldg. H.W.& elec. booster H.W.	0.00	60.95	5,800.00	250
Energy Star dishwasher Under Counter, High Temp - gas bldg. H.W.& elec. booster H.W.	2,947.47	238.92	6,000.00	250
Energy Star dishwasher Door Type, Low Temp - gas bldg. H.W.& elec. booster H.W.	0.00	609.81	8,500.00	1000
Energy Star dishwasher Door Type, High Temp - gas bldg. H.W.& elec. booster H.W. Energy Star dishwasher Single Tank Conveyor, Low Temp - gas bldg. H.W.& elec. booster	5,716.31	445.98	9,000.00	1000
H.W.  Energy Star dishwasher Single Tank Conveyor, High Temp - gas bldg. H.W.& elec. booster	0.00	572.10	14,000.00	1500
H.W. Energy Star dishwasher Multi Tank Conveyor, Low Temp - gas bldg. H.W.& elec. booster	8,798.28	559.10	15,000.00	1500
H.W.	0.00	877.66	22,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - gas bldg. H.W.& elec. booster H.W.	13,474.15	1,092.20	24,000.00	2000
Energy Star dishwasher Under Counter, Low Temp - elec. bldg. H.W.& gas booster H.W.	1,315.83	0.00	5,800.00	250
Energy Star dishwasher Under Counter, High Temp - elec. bldg. H.W.& gas booster H.W.	5,158.07	119.46	6,000.00	250
Energy Star dishwasher Door Type, Low Temp - elec. bldg. H.W.& gas booster H.W.	13,165.37	0.00	8,500.00	1000
Energy Star dishwasher Door Type, High Temp - elec. bldg. H.W.& gas booster H.W. Energy Star dishwasher Single Tank Conveyor, Low Temp - elec. bldg. H.W.& gas booster	9,842.77	222.99	9,000.00	1000
H.W.  Energy Star dishwasher Single Tank Conveyor, High Temp - elec. bldg. H.W.& gas booster	12,351.30	0.00	14,000.00	1500
H.W.  Energy Star dishwasher Multi Tank Conveyor, Low Temp - elec. bldg. H.W.& gas booster	13,971.39	279.55	15,000.00	1500
H.W.	18,948.02	0.00	22,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - elec. bldg. H.W.& gas booster H.W.	23,579.76	546.10	24,000.00	2000
Energy Star dishwasher Under Counter, Low Temp - gas bldg. H.W.& booster H.W.	0.00	60.95	5,800.00	250
Energy Star dishwasher Under Counter, High Temp - gas bldg. H.W.& booster H.W.	0.00	358.38	6,000.00	250
Energy Star dishwasher Door Type, Low Temp - gas bldg. H.W.& booster H.W.	0.00	609.81	8,500.00	1000
Energy Star dishwasher Door Type, High Temp - gas bldg. H.W.& booster H.W.	214.37	668.97	9,000.00	1000
Energy Star dishwasher Single Tank Conveyor, Low Temp - gas bldg. H.W.& booster H.W.	0.00	572.10	14,000.00	1500

Energy Star dishwasher Single Tank Conveyor, High Temp - gas bldg. H.W.& booster H.W.	1,900.80	838.65	15,000.00	1500
Energy Star dishwasher Multi Tank Conveyor, Low Temp - gas bldg. H.W.& booster H.W.	0.00	877.66	22,000.00	2000
Energy Star dishwasher Multi Tank Conveyor, High Temp - gas bldg, H.W.& booster H.W.	0.00	1.638.30	24.000.00	2000

There are two hundred and sixteen measures for the food service equipment program. The 2011 YTD data has shown an average of \$3,355 for incremental costs, 4,527 average kWh savings and 745 average therm savings per project with a \$0.09 incentive per kWh and \$1.40 incentives per therm.

# **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their food service equipment through direct financial incentives.

#### **Key Avista Staff:**

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Andy Paul and Levi Westra.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric and retail natural gas customers who are choosing to install or replace high efficient food service equipment.

# Program Overview:

This program offers incentives for commercial customers who purchase or replace food service equipment with Energy Star or higher equipment. This equipment helps them save money on energy costs.

# **Implementation Plan**:

This is a prescriptive program with two hundred and sixteen measures being offered. The average incentive covers eleven percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# Prescriptive Lighting

# Commercial/Industrial Sector

# Measures Incorporated within the Program:

```
2-Lamp T12 U-Lamp to 2-Lamp F17T8
4-Lamp T12 to 4-Lamp T8 (4-Foot)
4-Lamp T12 to 3-Lamp T8 (4-Foot)
4-Lamp T12 to 2-Lamp T8 (4-Foot)
3-Lamp T12 to 3-Lamp T8 (4-Foot)
3-Lamp T12 to 2-Lamp T8 (4-Foot)
2-Lamp T12 to 2-Lamp T8 (4-Foot)
2-Lamp T12 to 1-Lamp T8 (4-Foot)
1-Lamp T12 to 1-lamp T8 (4-Foot)
4-Lamp T12 Fixture to 4-Lamp T8 Fixture/Retrofit: (8)4 foot or (4)8 foot lamps
2-Lamp T12 Fixture to 2-Lamp T8 Fixture/Retrofit: (4)4 foot or (2)8 foot lamps
2-Lamp T12 Fixture to 2-Lamp T5 High-Output
2-Lamp T12 HO or VHO Fixture to 2-Lamp T8 High-Output Fixture/Retrofit
2-Lamp T12 HO or VHO Fixture to 4-Lamp T5 High-Output Fixture
2-Lamp T12 HO or VHO Fixture to 2-Lamp T5 High-Output 5-foot Fixture
1-Lamp T12 Fixture to 1-Lamp T8 Fixture/Retrofit: (2)4 foot or (1)8 foot lamps
1-Lamp T12 Fixture to 1-Lamp T5 Fixture High-Output Fixture
250 watt HID Fixture to 4-Lamp T8 Fixture HO or 2-Lamp T5HO 5-foot Fixture
400 watt HID Fixture to 4-Lamp T5 High-Output Fixture
400 watt HID Fixture to 6-Lamp T8 Fixture (4-Foot Lamps)
400 watt HID Fixture to 8-Lamp T8 Fixture (4-Foot Lamps)
400 watt HID Fixture to 200 Watt Induction Fluorescent Fixture
1000 watt HID Fixture to 400 Watt Induction Fluorescent Fixture
100 watt or less Incandescent to Compact Fluorescent Lamp (30 watt or Less)
Over 100 Watt to 200 watt Incandescent to CFL or Fixture (40-55 watt)
Over 200 watt Incandescent to Compact Fluorescent Lamp or Fixture (55-65 watt)
60 watt or greater Incandescent to Dimmable Compact Fluorescent or Cold Cathode**
100 watt or greater incandescent flood to Ceramic Metal Halide (25 watt)
150 watt or greater incandescent to New Linear T8 Fluorescent Fixture
90 watt or greater incandescent to 15 watt or less LED
120 watt or greater incandescent to 20 watt or less LED
20-30 watt Incandescent to LED or Low-Wattage Equivalent
20-60 watt Incandescent to Cold Cathode
Incandescent Exit Sign to New LED Exit Signs
Fixture with no Occupancy Sensor to Built in Occupancy Sensor in fixture
```

### **Program Objectives:**

This program is intended to prompt the customer to increase the energy-efficiency of their lighting equipment through direct financial incentives. It indirectly supports the infrastructure and inventory

necessary to ensure that the installation of high-efficiency equipment is a viable option for the customer.

### Key Avista Staff:

Camille Martin is designated as the current Program Manager. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts, working with key trade allies, performing outreach to commercial and industrial customers, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. The program coordinator is Sandra Hoye who works with the processing team of contract employees and students to perform data entry duties for this program.

Tom Lienhard is the primary technical resource for the program. Analytical and evaluation support is coordinated through Avista Policy, Planning and Analysis Team.

### Target Market(s):

This is applicable to <u>existing</u> commercial or industrial facilities with electric service provided by Avista with rate schedules 11 or above.

# **Program Overview:**

There is significant opportunity for lighting improvements in commercial facilities. Avista has been offering site specific incentives for qualified lighting projects for many years. In an effort to streamline the process and make it easier for customers and vendors to participate in the program we developed a prescriptive approach, which began in 2004. This program provides for many common retrofits to receive a pre-determined incentive amount. Incentive amounts were calculated using a baseline average for existing wattages and replacement wattages. Energy savings claimed are calculated based on actual customer run times using the averages as calculated for incentive amounts.

The prescriptive lighting program makes it easier for customers, especially smaller customers and vendors to participate in the program. We have seen a substantial increase in the number of projects that have been completed since this approach was instituted.

A total of 35 individual measures are included in the Prescriptive Lighting Program. These include T12, HID and incandescent retrofits to more energy efficient light sources including, T8, T5, induction, LED, cold cathode and compact fluorescent lamps.

# Implementation Plan:

The key drivers to delivering on the objectives of this program are the direct-incentives to fuel customer interest, marketing efforts to drive customers to the program and ongoing work with trade allies to ensure that customer demand can be met.

The Prescriptive Lighting Program is an integral consideration in the ongoing *everylittlebit* campaign, specifically Efficiency Avenue. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights.

Key to success is clear communication to lighting supply houses, distributors, electricians and customers on incentive requirements and forms. Utility websites are also channels to communicate program requirements and highlight opportunities for customers. Avista's regionally based Account Executives (AEs) are a key part of delivering the Prescriptive Lighting Program to commercial and industrial customers. Any changes should have advance notice for customers in the form of 90 days to submit under old requirements. This usually includes at a minimum direct mail communication to trade allies as well as internal, forms and website updates.

On July 14, 2012, the manufacturing of T12 Fluorescent lighting will end. Avista will be encouraging commercial customers to retrofit their existing T12 lighting to T8's or T5's. In the beginning of 2012, a "fire sale" will be planned and implemented.

In 2012, the phase out of 100 watt and 75 watt incandescent lamps will also occur. The prescriptive commercial lighting program will discontinue incentivizing the change out of incandescent greater than 75 watts, in 2012.

# Prescriptive Premium Efficiency Motors Program

Non-Residential Washington/Idaho Portfolio

# Measures Incorporated within the Program:

TEFC	•	kWh				kWh	
HP	Rebate	Savings	Inc Cost	ODP HP	Rebate	Savings	Inc Cost
1	50	438.30	97.63	1	50	438.30	75.00
1.5	25	166.55	45.73	5	100	517.19	219.00
2	20	105.19	60.65	7.5	110	561.02	259.15
3	25	135.87	55.62	10	80	403.24	266.29
15	140	841.54	310.66	15	105	670.60	189.90
20	140	876.60	240.36	20	150	771.41	455.02
25	200	1,051.92	689.82	25	180	932.12	378.50
30	300	2,673.63	576.37	30	200	1,678.69	374.00
40	250	1,656.77	543.83	40	250	1,344.12	647.44
60	190	1,214.09	307.95	50	250	1,379.18	923.04
75	250	2,195.88	331.81	60	250	1,256.46	790.84
100	650	5,566.41	1,054.90	75	400	2,022.02	1,071.78
125	650	3,287.25	1,856.92	100	575	3,668.57	1,042.33
150	850	5,404.24	1,465.75	125	640	3,222.97	1,393.05
200	750	4,834.45	1,191.51	150	875	4,482.35	1,620.39

There are fifteen measures for the premium efficiency motor program. The 2011 YTD data has shown an average of \$3,672 for incremental costs and 11,227 average kWh savings with a \$0.14 incentive per kWh.

#### **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their motors by choosing to install premium efficient equipment through direct financial incentives.

# Key Avista Staff:

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Levi Westra.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric customers who are installing premium efficient motors.

# Program Overview:

Premium efficiency motors have improvements over standard motors that result in reduced downtime and lower operating and maintenance cost.

# **Implementation Plan**:

This is a prescriptive program with fifteen measures being offered. The average incentive covers twenty percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# Prescriptive Commercial Variable Frequency Drive Program

Non-Residential Washington/Idaho Portfolio

# Measures Incorporated within the Program:

VFD Incentive per HP of Designed Primary Motor Load

Type of VFD Maximum Incentive per HP

VFD Fans \$80

VFD Cooling Pump Only \$85

VFD Heating Pump Only or Combined Heating & Cooling Pump \$100

# Eligible Fan or Pump Applications

Supply Fan or Supply Air Handler

Supply Fan on Variable Air Volume Packaged or Rooftop HVAC Unit

Return Fan or Return Air Handler

Return Fan on Variable Air Volume Packaged or Rooftop HVAC Unit

**Building Exhaust Fan** 

**Boiler Feed Water Pump** 

**Cooing Tower Pump** 

Chilled Water Pump

**Condensing Water Pump** 

Other

There are basically three measures for the variable frequency drive program. The 2011 YTD data has shown an average of \$18,360 for incremental costs and 99,816 average kWh savings per project with a \$0.074 incentive per kWh.

#### **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their fan or pump applications with variable frequency drives through direct financial incentives.

#### **Key Avista Staff:**

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Mike Dillon.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric customers who are retrofitting fan or pump applications.

### Program Overview:

Customers that are using single speed motors to drive fans or pumps may be able to save energy through the use of a variable frequency drive (VFD). The VFD can convert a single speed motor to variable speed with no modification to the motor itself. VFD's are readily available for motors from 1 to 300 HP and are easily installed directly into the power line leading to the motor, replacing the existing motor starter.

### Implementation Plan:

This is a prescriptive program with three measures being offered. The average incentive covers forty percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# Prescriptive Commercial Windows and Insulation Program

Non-Residential Washington/Idaho Portfolio

### Measures Incorporated within the Program:

Measure Type
Wall <r4 r11-r18<="" td="" to=""></r4>
Wall <r4 r19+<="" td="" to=""></r4>
Attic <r11 r30-r44<="" td="" to="" up=""></r11>
Attic <r11 r45+<="" td="" to="" up=""></r11>
Roof <r11 r30+<="" td="" to="" up=""></r11>
New Windows (U-value.3/SC.35)
Retro Windows (U-value.3/SC.35)

There are seven measures for the Commercial Windows and Insulation Program. The 2011 YTD data has shown an average of \$2,185.62 for incremental costs, 428 average therm savings and 2,584 average kWh savings per project with a \$1.76 incentive per therm and a \$0.13 incentive per kWh.

### **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their building shell through direct financial incentives.

#### Key Avista Staff:

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking will include entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Mike Dillon.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

# Target Market(s):

This market focuses exclusively upon penetration of the non-residential retail natural gas and electric customers who are retrofitting their insulation or installing energy efficient windows in a new construction or retrofit scenario.

### Program Overview:

Replacing windows and adding insulation can make a business more energy efficient and comfortable. This program offers customer incentives for increasing the efficiency of the building envelope.

### Implementation Plan:

This is a prescriptive program with seven measures being offered. The average incentive covers fifteen percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# Prescriptive Commercial Natural Gas HVAC Program

Non-Residential Washington/Idaho Portfolio

# Measures Incorporated within the Program:

High Efficiency Furnace	60-225 kBTU ≥ 90%
Multi-Stage Furnace	60-225 kBTU ≥ 90%
Single-Stage Furnace	60-225 kBTU ≥ 94%
Boiler	100-300 kBTU≥ 85%
Boiler	100-300 kBTU≥ 90%
HE Unit Heater	100-300 kBTU≥ 90%

There are six measures for the Commercial Natural Gas HVAC program. The 2011 YTD data has shown an average of \$1,476 for incremental costs and 495 average therm savings per project with a \$1.37 incentive per therm.

# **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their HVAC equipment through direct financial incentives.

### **Key Avista Staff:**

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelly Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Mike Dillon

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

### Target Market(s):

This market focuses exclusively upon penetration of the non-residential retail natural gas customers who are installing or replacing HVAC equipment.

### **Program Overview:**

Installing energy efficient heating equipment will reduce a customer's operating costs and save energy. This program offers direct incentives for installing high efficient natural gas HVAC equipment.

### Implementation Plan:

This is a prescriptive program with six measures being offered. The average incentive covers fifteen percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that

customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# Prescriptive Standby Generator Block Heater Program

Non-Residential Washington/Idaho Portfolio

### Measures Incorporated within the Program:

A \$400 incentive is provided per pump driven circulating block heater. The 2011 YTD data has shown an average of \$1,281 for incremental costs and 1,814 for kWh savings per project.

### **Program Objectives:**

This program is intended to prompt the customer to increase the energy efficiency of their circulating block heater equipment through direct financial incentives.

### Key Avista Staff:

The management of the program will be provided by Greta Zink. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts in collaboration with Kelley Conley, working with key trade allies and retailers, performing outreach to key customer segments in collaboration with the Account Executives, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Program tracking includes entry of project-specific data into SalesLogix. Technical support is provided by the entire Technical services team with an emphasis on support from Levi Westra.

Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis of team.

### Target Market(s):

This market focuses exclusively upon penetration of the non-residential electric customers who are utilizing thermosiphon circulating block heaters on a continuously basis.

#### **Program Overview:**

Most block heating technology employs natural convection within the engines block's system to drive circulation, more commonly known as thermosiphon. This program promotes the replacement of thermosiphon style engine block heaters with pump driven circulation units which reduce overall block temperature. Because it also decreases the heat transfer rate from the block to the environment, it can reduce overall block heater energy consumption.

#### Implementation Plan:

This is a prescriptive program with one measure being offered. The incentive typically covers thirty percent of the customer incremental cost of the efficiency investment. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms. The *everylittlebit* campaign will be focused on commercial customers this year and will bring a broader awareness for energy efficiency to the business segment.

# **Resource Conservation Manager Program**

Commercial/Industrial Sector

### Measure Incorporated within the Program:

The Resource Conservation Management Program (RCM) program does not itself incorporate or provide incentives for any specific measure. It is a means by which to drive customers with large facilities to comprehensively review their energy usage with a commitment to pursuing cost-effective efficiency options. Savings achieved by the RCM would be claimed as part of other programs. Avista focuses upon energy-efficiency, but the RCM generally manages multiple resources to include water, sewage and solid waste.

# **Program Objectives:**

The RCM strives to create healthy and comfortable working environments for staff and the community. The focus of the RCM program is to create a sustainable long-term program that measures and establishes practices that reduce consumption of energy, natural resources and the generation of waste. This program also promotes the use of alternative energy and green technologies. By reducing the use of natural resources, a greater amount of the funds can be spent for supporting other budget needs. Additionally, conservation lessens negative impacts on our environment. Wasting resources contributes to environmental problems such as global warming, water, air and land pollution including acid rain. When we conserve energy and water, reduce solid waste, and utilize green alternatives; we help reduce and prevent environmental damage.

A successful energy and natural resources conservation program welcomes and relies upon active participation by all staff. Responsibility and authority for implementing the energy and natural resources conservation management plan lie at all levels of government or institutional management. Energy and resource conservation begins with the design of the buildings and landscaping, and continues through the daily operation and maintenance of the buildings.

The goal of The Resource Conservation Management (RCM) Program is to wisely manage the use of energy and natural resources; and to create and maintain sustainable, healthy environments through a continued long-term resource management plan. The participating institutions will implement a resource conservation management plan to:

- Reduce the use of energy, water and other natural resources; reduce waste generation and encourage recycling.
- Educate staff about the importance of conserving energy and natural resources.
- Lessen environmental damage attributable to natural resources consumption.

### **Key Avista Staff:**

Camille Martin is designated as the current Program Manager. Program management responsibilities include ongoing process evaluations, working with RCMs, performing outreach to commercial and industrial customers, ensuring that the proper program tracking is in place and coordinating all

implementation aspects of the program. Account executives also play a crucial part in the implementation of the Resource Conservation Manager (RCM) program.

Mike Dillon is the primary technical resource for the program. Analytical and evaluation support is coordinated through Avista Policy, Planning and Analysis Team.

# Target Market(s):

This is applicable to institutions that have contracted with Avista to participate in the RCM program. Key external stakeholders include contracted institutions, government and trade allies. Key internal stakeholders include Regional Managers and Account Executives, DSM Engineers and Analysts, Contact Center, Accounts Payable, Marketing and Corporate Communications.

The program is applicable to <u>existing</u> commercial or industrial facilities with electric (Rate schedules 11 or above) and/or natural gas (Rate Schedules 101 and above with exclusion of rate schedules 146 and 148) services provided by Avista.

### Implementation Plan:

The RCM is a dedicated individual who supports an organization's energy and resource efficiency program. The RCM's sole focus is to monitor and reduce utility costs for electricity, natural gas, fuel oil, propane, water & sewer, solid waste & recycling, and other resource expenditures.

The RCM will develop, implement, monitor, evaluate and promote the most effective and efficient use of utility resources in all participating facilities in order to minimize operating costs and promotes environmental stewardship. Savings are achieved through on-site surveys and assessments, careful tracking of utility billings and resource usage, data analysis and reporting, promoting awareness, and implementation of education and training.

#### **RCM** Responsibilities

- Leads and directs the Shared Resource Conservation Management Program across organization and departmental boundaries.
- Conducts on-site resource surveys and assessments of facilities to identify efficiency measures and best practices.
- Audits and enters monthly utility and consumption data into a full-featured utility tracking database.
- Documents and analyzes predicted cost savings for identified measures, and monitors behavior performance through trending analysis.
- Analyzes use and trends of electricity, natural gas, fuel oil, propane, water & sewer, solid waste
   & recycling, and other resource expenditures.
- Act as primary point of contact with utility company on energy conservation, grant/rebates and green power initiatives.
- Prioritizes and participates in the implementation of targeted building operation, maintenance, and equipment efficiency measures and upgrades that are both practical and cost-effective.
   Tracks the resulting costs and benefits of implementation and the subsequent resource savings.
- Produces monthly and quarterly progress reports.

- Identifies and prioritizes recommendations for practical and effective no-cost/low-cost energy and resource saving measures.
- Presents recommendations to building, custodial, maintenance and administrative staff.
- Collaborates with staff and managers to develop appropriate implementation strategies. Coordinates with multiple departments on the recommendations.
- Trains building staff and occupants in conservation measures, as well as to increase awareness of the impact of behaviors on resource use and costs.
- Develop and implement a recognition program that encourages actions toward savings goals and provides rewards when goals are achieved. Promote RCM Program success stories and share energy savings ideas with staff.
- Identifies opportunities, promotes active involvement and behavior change, motivates and rewards participation for all facility occupants.
- Promotes environmental stewardship and accountability to create a strong conservation ethic among building occupants and organizational leaders.
  - **a.** <u>Facility Assessments-</u>The questions should be addressed as part of the evaluation of success or failure of the RCM program within individual facilities:
    - i. Has there been adequate training given to the RCM to perform assessments?
    - ii. Are the facility assessments being performed adequately?
    - iii. Have the low or no cost energy efficiency opportunities being addressed?
    - iv. Have the cost effective energy efficiency opportunities been communicated and reported to the facility management? Are there plans to implement opportunities?

# b. <u>Energy Database (baseline accuracy & adjustment, data collected (quality, accurate), progress- continual improvement & deficiencies, reporting)</u>

- i. Has the appropriate and adequate database training been given to the RCM?
- ii. Has the baseline data been entered and checked for quality and accuracy? Has the baseline data been adjusted to reflect inaccuracies?
  - 1. Is the square footage accurate?
  - 2. Is the utility bill information complete and correct in the baseline information imputed into the database?
  - 3. Have the fuels used been accounted for in the database?
- iii. Has the data for the implemented energy efficiency projects been adjusted?
  - 1. Performance factors (appliance efficiency)
  - 2. Operating factors (kW-load, hours of operation, temperature (outdoor and indoor- settings)
  - 3. Minimum performance standards (state energy codes)
- iv. Is reporting of progress adequate?
  - 1. Has the energy efficiency and natural resource use reduction opportunities been reported accurately?
  - 2. Has the reporting requirements been met?
    - a. Reported in a timely manner? Has the monthly and quarterly reporting requirement timeline been met?
    - b. Has the database entries met the reporting requirements?
    - c. Has the verbal communication between parties been adequate?
- v. Is the right type of data being collected?
  - 1. Does Avista need any additional data collected to meet its needs for EM&V?

- c. Critical evaluation issues (how to capture and calculate the energy savings)
  - i. Do we have an appropriate method of calculating the energy and natural resource behavioral savings?
  - ii. Are there additional analysis needs to be conducted, such as Avista engineering team calculating efficiency levels of appliances?

# Water Heater Equipment Program

Residential Home Improvement Portfolio

### Measures Incorporated within the Program:

The water heater equipment program consists of the following measures: tank type water heaters only: electric, 50 gallon, with efficiency rating (EF) of 0.93 or greater; natural gas, 40 gallon, EF of 0.62 or greater; natural gas, 50 gallon, EF 0.60 or greater.

# **Program Objectives:**

Offer customers an incentive for choosing high efficiency water heaters to install in their residences.

# **Key Avista Staff:**

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

#### Target Market(s):

The high efficiency water heater program is available to single-family residential buildings (up to a fourplex), both 'stick-built' and manufactured homes. Incentives are available in retrofit installations and new construction. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include contact center, accounts payable, marketing and corporate communications.

#### **Program Overview:**

As noted above this program offers customers an incentive if they choose a high efficiency water heater over a standard efficiency model. The incentive acknowledges the customer's choice to increase the efficiency of their equipment before burn-out of existing equipment (thus leaving them in a no-heat situation).

# Implementation Plan:

Delivering on the objectives of this program are the direct-incentives and marketing efforts and ongoing work with trade allies.

The high efficiency water heater equipment program is an integral part in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic

highlights. Installing high efficiency equipment may be a large capital expense. However, over the long term, the customers will see the benefit in the form of lower energy usage. Avista does promote both high efficiency electric and natural gas equipment options. While the direct use of natural gas is preferred, many Avista customers are in rural areas without natural gas availability. Therefore the offering of an incentive for the installation of either a high efficiency electric or natural gas water heater allows more customers the opportunity to participate in the program.

Key to success is clear communication to customers on rebate requirements and forms. Utility websites are also channels to communicate program requirements and highlight opportunities for customers. Any changes should have advance notice for customers in the form of 90 days to submit under old requirements. This usually includes at a minimum direct mail communication to trade allies as well as internal, forms and website updates.

# Home Energy Audit Program

Residential Home Improvement Portfolio

### **Measures Incorporated within the Program**

Home Energy Audits do not in and of themselves produce energy savings. That being said, all customers receiving an audit are offered a kit which contains CFL, low flow showerheads, expanding foam, caulk, draft stoppers and an energy savings guide.

# **Program Objectives**

The primary purpose/objective of the home energy audit is to educate customers about energy efficiency opportunities in their homes and providing them with an energy plan which will help decide which energy efficiency measure(s) to pursue based on cost-effectiveness, improved comfort and better indoor air quality. Because many of the primary opportunities are not obvious to the homeowner, the diagnostic testing shows them the hidden opportunities (primarily low insulation levels and air leaks). The audit reports really brings energy efficiency to the forefront in the customers mind.

### **Key Avista Staff**

Joe Brabeck is the program manager for this 2 year pilot program. Program management responsibilities include day to day program activities include recruiting and managing home energy audit contractors, assigning audits, acting as liaison between Avista and government partners, creating all monthly and quarterly reports, working with marketing to create interest in the program. Annette Long is the administrative assistant that handles both the online and mailed in registration forms and the processing of that information into an Excel spreadsheet. Annette also handles all of the check processing which accompanies the registration forms. Bryce Eschenbacher, one of Avista DSM engineers, reviews the data sheets sent in by the auditors and creates the final reports that got out to customers. Analytical and evaluation support is coordinated through the Avista Policy, Planning and Analysis team.

# **Target Market**

The target market for this pilot program is single family homeowners living within the boundaries of Spokane County. Special emphasis is placed on the cities of Spokane and Spokane Valley and the unincorporated area of Spokane County where resident are eligible for Energy Efficiency Conservation Block Grant funding. These funds along with Avista DSM funds bring the cost of the audit down to \$49.00 which seems to be the right price point for these audits (even though the value is closer to \$400.00)

#### **Program Overview**

Prior to the implementation of this program there were virtually no home energy audits being performed in Spokane County. As of September 30<sup>th</sup>, 2011 approximately 750 have been completed. As mentioned above, the price that people seem to be willing to pay in this tight economy is \$49.00. EECBG funding for these audits will end in the 3<sup>rd</sup> and 4<sup>th</sup> quarters, and consequently it is expected that audit requests will drop off significantly after 2012.

### **Implementation Plan**

This program is well under way and is functioning well. We continue to look for ways to increase throughput but have to use existing low cost promotion options like e-blasts, bill inserts and rack cards.

One area of concern is retaining the services of qualified, certified Home Energy Auditors. particularly challenging the program winds down.	This will be

# **Residential Lighting Programs**

# **Residential Sector**

The planned and budgeted residential lighting program is composed of Avista's participation in manufacturer buy-downs ("Simple Steps, Smart Savings"), CFL distributions at events and a CFL recycling program.

Additionally the Company will be considering the future of the continued CFL distributions using different physical products and perhaps different program requirements.

# Regional Lighting Buy-Down Effort known as "Simple Steps, Smart Savings"

### Measure Incorporated within the Program:

Twists: 12,20,26 watt 3-Way

9W Spiral CFL 33W 3-Way

13W Spiral CFL 12,23,29 watt 3-Way 14W Spiral CFL 12, 23, 34 watt 3-Way 11W R20 Reflector 15W Spiral CFL 18W Spiral CFL 14W Reflector 20W Spiral CFL 15W R30 Reflector 23W Spiral CFL 23W R38 Reflector 26W R38 Reflector 30W Spiral CFL 26W R40 Reflector 40W Spiral CFL 13W Daylight 23W Outdoor Reflector 26W Outdoor Reflector 23W Daylight

9W A-lamp 23W R38 High Heat Reflector

15 W A-lamp
7W Candelabra
14W A19
9W Candelabra
Specialty CFLs:
13W Candelabra

14W Candle Base BW12W Globe16W R30 Flood15W Globe

23W R40 Flood

**Program Objectives:** Achieve cost-effective kWh savings through retail channels by offering reduced pricing and expanded variety of energy efficient lighting.

### **Key Avista Staff**

The BPA "Simple Steps, Smart Savings" is a regional turn-key CFL buy-down program contracted to Fluid Market Strategies.

Camille Martin is designated as the current Program Manager. Program management responsibilities include ongoing process evaluations, performing outreach to retailers, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Mike Dillon is the primary technical resource for the program.

Fluid Market Strategies, Ryan Crews and Megan McCabe, program management responsibilities include coordinating program marketing efforts, performing outreach to retailers, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Analytical and evaluation support is coordinated through Avista Policy, Planning and Analysis Team.

**Target Market:** Retail residential customers are the primary target market. Potentially small business procuring lighting at the retail level would also benefit and is an appropriate secondary target market.

**Program Overview:** Simple Steps, Smart Savings is regional buy-down effort that works with manufacturers and retailers to offer CFLs to retail customers at various outlets at a reduced price.

# Implementation Plan:

The BPA "Simple Steps, Smart Savings" team launched the promotion in 2010. "Simple Steps Smart Savings" provides Avista Utilities with a retail markdown program.

Products included for incentives in the Promotion:

Twist CFLs: Regular and Daylight Twists

<u>Specialty CFLs</u>: Reflectors, Globes, Candelabras, Torpedoes, Outdoor Lighting, and A-lamps
The key to success of this program is clear communication to customers through Fluid website on the program and highlight opportunities for customers.

# **Energy Efficiency Outreach Events with CFLs provided to participants:**

# Measures incorporated within the Program:

Twists:

13W Spiral CFL

20W Spiral CFL

23W Spiral CFL

26W Spiral CFL

This program is available to all Washington and Idaho customers with electric service provided by Avista who attend community events.

In addition to outreach events, an approach to leverage interested community partners to expand reach to potentially underserved markets such as shut-in or elderly is available. This approach has been referred to as Dollars for Change. Measures incorporated in this offering included:

Gratis Supply	Additional Supply Price	Additional Supply Subsidy	Retail Price	Unit Profit	Bonus	Total School Profit	Avista Cost
\$500 (270 bulbs)	\$1.85	\$0	\$3.00	\$1.15 on 2230 addl bulbs sold	\$0	\$810 on gratis supply + \$2564.50 + \$0 bonus = <b>\$3,374.50</b>	\$500 gratis supply + \$0 subsidy + \$0 bonus = <b>\$500</b> (x10 schools = \$5,000)
\$500 (270 bulbs)	\$1.00	\$0.85	\$3.00	\$2.00 on 2230 addl bulbs sold	\$0	\$810 on gratis supply + \$4460 + \$0 bonus = \$5,270	\$500 gratis supply + \$1895.50 subsidy + \$0 bonus = <b>\$2,</b> (x10 schools = \$23,955)
\$0	\$1.85	\$0	\$3.00	\$1.15 on all bulbs sold	\$500	\$2875 + \$500 bonus = <b>\$3,375</b>	\$0 gratis supply + \$0 subsidy + \$500 bonus = <b>\$500</b> (x10 schools = \$5,000)
\$0	\$1.00	\$0.85	\$3.00	\$2.00 on all bulbs sold	\$500	\$5000 + \$500 bonus = <b>\$5,500</b>	\$0 gratis supply + \$2,125 subsidy + \$500 bonus = <b>\$2,62</b> (x10 schools = \$26,250)

Analytical and evaluation support is coordinated through Avista Policy, Planning and Analysis Team.

**Program Objectives:** Achieve kWh savings through distribution on energy efficient lighting to residential and small commercial customers.

# Key Avista Staff:

# **Outreach Events:**

Rachelle Humphrey is designated as the current Program Coordinator. Chris Drake, Renee Coelho, Renesha Conley and Roxanne Williams assist with the responsibilities including staffing outreach events. Mary Tyrie coordinates the marketing efforts.

# **Dollars for Change:**

Camille Martin and Kristine Meyer (Avista Community Investment & Foundation Manager) co-manage the program. Camille Martin's program management responsibilities include ongoing program evaluation and ensuring that the proper program tracking is in place. Camille Martin and Kristine Meyer coordinate the CFL acquisition and delivery of CFLs to schools. Kristine Meyer coordinates program marketing efforts, performs outreach to schools and coordinating all implementation aspects of the program. Mike Dillon is the primary technical resource for the program.

**Target Market:** Residential customers are the primary target market.

# **Program Overview:**

There is significant opportunity for efficient lighting improvements in customer residences. Incentives also encourage customers to increase efficiency before burn-out of the existing lighting.

If each of Avista's 352,000 electric customers changed out one CFL light bulb, it would save almost 12 megawatts of electricity and avoid 3.6 million tons of CO2 emissions based on Avista's renewable resource mix. That's the equivalent of removing the greenhouse gas emissions of 611 passenger vehicles.

In addition to using up to 75 percent less energy than incandescent light bulbs, CFLs also last up to seven times longer than standard lighting.

*Implementation Plan:* Outreach efforts include approximately a dozen DSM-led events throughout the year. In addition to DSM-led events, the implementation team and marketing have developed an "outreach in a box" available to Avista employees who want to lead having a presence at an external event and want to include energy efficiency messages as a part of that effort. This has increased the ability of the implementation team to coordinate additional outreach without having to staff. Similarly, a few non-profit organizations have participated in an effort to deliver CFLs directly to Avista electric customer homes. These approaches increase the availability of and face to face interaction on energy efficiency.

# **CFL Distribution Program**

#### Measures:

CFL twists and specialty bulbs

# **Program Objectives:**

Provide an overview of the effort to be completed in late 2011 for evaluation and consideration in 2012 to deliver energy efficient lighting to residential and/or small commercial customers to achieve cost-effective kWh savings.

### **Key Avista Staff:**

Sandra Hoye coordinated the development and implementation of the program plan in 2011 with other internal and external implementation stakeholders. Kelly Conley was the marketing manager and Debbie Simock was the corporate communications contact. CFLs were purchased from Niagara Conservation. Mailstream USA was the kit fulfillment vendor and USPS was the mailer.

### Target Market(s):

The target audience was residential and small commercial electric customers in WA/ID. A subsequent effort would consider both audiences again. Key internal stakeholders include the policy group, corporate communications, marketing, contact center, claims, mail room and accounts payable.

### **Program Overview:**

Upon the completion of the 2011 CFL Distribution program, evaluate and consider development of a CFL direct mail program for WA/ID residential and possibly schedule 11 (small business) electric customers for 2012. To date no budget or energy savings are incorporated into this business plan. This program will help reiterate the benefits of CFLs or specialty bulbs and offer customers a simple and convenient way to change out their bulbs for more efficient ones. The program is only a placeholder at this time but recognizes the infrastructure and awareness as a result of the 2011 effort and could be an additional tool in achieving cost-effective kWh savings. This program would require a change to business plan to identify the scope and scale if it is determined appropriate for 2012. This is may be the opportunity to conduct an after-action review of the 2011 effort and have recommendations for a change to 2012's business plan or an opportunity in the second half of the latest BCP biennium period.

#### Implementation Plan:

The lighting efficiency kit was developed to contain 8 CFLs (2, 13 watt & 6, 20 watt), "turn it off" stickers, a CFL educational brochure and recycling information. Rigorous pre-planning with USPS and Mailstream (local fulfillment house) occurred to ensure safe delivery of bulbs to the customer's home. The program was announced in Avista's customer newsletter Connections in June. Beginning in July of 2011 customers received a bill insert stating CFLs were on the way and an opt-out option was available on the insert. A web page was created for easy resolve of customer questions. The opt-out option was put in place to avoid unnecessary attention from customers who do not like or want the CFLs. All contact centers received one —hour training sessions on how to respond to customer inquiries.

# **CFL Recycling:**

In 2008, Avista launched a free recycling program for spent compact florescent light bulbs (CFL) for its electric residential Washington and Idaho customers. Proper recycling of spent CFLs allows for reuse of glass, metals and other materials, as well as the safe disposal of the trace amount of mercury in the bulbs – about the same amount that would cover the tip of a ball-point pen.

This recycling program joins Avista's suite of energy efficiency programs providing rebates and incentives to residential, commercial and industrial customers.

Participating recycling locations are:

Company Name	City, State
Lewis Clark Recyclers Inc.	Lewiston, ID
Moscow Recycling Center General Office Warehouse	Moscow, ID
Idaho Hill Collection Site	Oldtown, ID
Clark Fork Collection Site	Clark Fork, ID
Mile Post II Collection Site	Priest River, ID
Bonner County Solid Waste	Sandpoint, ID
Colburn Transfer Station	Sandpoint, ID
Shoshone County Solid Waste	Wallace, ID
Asotin County Regional Landfill	Clarkston, WA
Sunshine Disposal and Recycling	Colville, WA
Lincoln Co. Solid Waste	Davenport, WA
Pullman Recycling Center	Pullman, WA
Whitman County Solid Waste	Pullman, WA
Clark's Recycling Westside Center	Spokane, WA
Earthworks Recycling Inc.	Spokane, WA
Du-Mor Recycling Jim Moore	Spokane, WA
Dufort	Sagle, ID
Garfield Bay	Sagle, ID
Grangeville Avista Office	Grangeville, ID
Archie's IGA	St. Maries, ID
Kootenai County	Coeur D'Alene, ID

# **HVAC Conversion Program**

Residential Home Improvement Portfolio

# Measures Incorporated within the Program:

The conversion program consists of the following measures: replacement of straight resistance electric heat with a central heat pump; replacement of straight resistance electric heat with a central natural gas heating system; replacement of an electric water heater with a natural gas water heater.

#### **Program Objectives:**

Offer customers an incentive for choosing heat pumps, natural gas furnaces, boilers or water heaters to install in their residences.

### Key Avista Staff:

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

The conversion program is available to single-family residential buildings (up to a four-plex), both 'stick-built' and manufactured homes. Incentives are available only for retrofit installations. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications departments.

# **Program Overview:**

The program targets customers who have electricity as their primary heating source for space and water heating needs. One criteria for program eligibility is that Avista electric must be the primary fuel source in the home.

The conversion incentive encourages the customer to choose either a more efficient electric heating system or to choose natural gas as their main heating source. Avista encourages the direct use of natural gas where feasible. However, there is a substantial amount of Avista service territory that is electric only with no natural gas availability. By offering a more efficient electric alternative allows more customers to participate in the program. The high efficiency HVAC equipment program incentive can be received in addition to the incentive offered under the conversion program.

# Implementation Plan:

Delivering on the objectives of this program are the direct-incentives and marketing efforts and ongoing work with trade allies.

The fuel conversion program benefits from the awareness generated by the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights. The program is also driven by local HVAC contractors and builders who promote high efficiency equipment installation.

Key to success is clear communication to customers on rebate requirements and forms. Utility websites are also channels to communicate program requirements and highlight opportunities for customers. Any changes should have advance notice for customers in the form of 90 days to submit under old requirements. This usually includes at a minimum direct mail communication to trade allies as well as internal, forms and website updates.

# High Efficiency HVAC Equipment Program

Residential Home Improvement Portfolio

### Measures Incorporated within the Program:

The high efficiency HVAC equipment program consists of the following measures: natural gas furnace or boiler with AFUE of 90% or greater; ducted air source heat pump with HSPF of 8.5 (manufactured homes must have HSPF of 7.7 and 13 SEER); ductless heat pump with HSPF of 9.0 and variable speed motor incorporated into a primary heating system.

### **Program Objectives:**

Offer customers an incentive for choosing high efficiency equipment to install in their residence.

### Key Avista Staff:

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

The high efficiency HVAC equipment program is applicable to single-family residential buildings (up to a fourplex), both 'stick-built' and manufactured homes. Incentives are available in retrofit installations and new construction. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include contact center, accounts payable, marketing and corporate communications.

### **Program Overview:**

As noted above this program offers customers an incentive if they choose a high efficiency piece of equipment over a standard efficiency model. The incentive encourages the customer to increase the efficiency of their equipment before burn-out of existing equipment (thus leaving them in a no-heat situation) or in the event of actual equipment failure.

#### Implementation Plan:

Delivering on the objectives of this program are the direct-incentives and marketing efforts and ongoing work with trade allies.

The high efficiency HVAC equipment program is an integral part in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights. Installing high efficiency equipment is usually a large capital expense. However, over the long term, the customers will see the benefit in the form of lower energy usage. Avista does promote both high efficiency electric and natural gas equipment options. While the direct use of natural gas is preferred, many Avista customers are in rural areas without natural gas availability. Therefore the offering of an incentive for the installation of a high efficiency air source heat pump or a ductless heat pump system allows more customers the opportunity to participate in the program.

Key to success is clear communication to customers on rebate requirements and forms. Utility websites are also channels to communicate program requirements and highlight opportunities for customers. Any changes should have advance notice for customers in the form of 90 days to submit under old requirements. This usually includes at a minimum direct mail communication to trade allies as well as internal, forms and website updates.

# **Insulation Program**

Residential Home Improvement Portfolio

## Measures Incorporated within the Program:

The insulation program consists of the following measures: installing R-10 or greater where less than R-19 exists in attic and less than R-5 exists in wall and floors. Both fitted/batt and blown-in materials are eligible. Insulation must be installed by a contractor who will certify existing insulation levels.

# **Program Objectives:**

Installing insulation measures for under-insulated homes offers customers a cost-effective way to achieve energy savings.

# Key Avista Staff:

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team with an emphasis from Mike Dillon and Bryce Eschenbacher provide technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

The insulation program is applicable to single-family residential buildings, both 'stick-built' and manufactured homes that are under-insulated. Incentives are available in retrofit installations only. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications departments.

# **Program Overview:**

As noted above this program targets customers with under-insulated homes. For customers with less than R-19 in the attic or less than R-5 in the wall or floor, this program provides an incentive to complete measures that increase the existing R-Value by R-10 or greater. In many cases, the average R-Value increase is closer to R-19 than R-10, however, the minimum is R-10 to allow for the greatest number of installations and savings are based on an average R-15 added.

# Implementation Plan:

Delivering on the objectives of this program are the direct-incentives and marketing efforts and ongoing work with trade allies.

The Insulation Program is an integral part in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights. Installing insulation is one of the easiest, most cost-effective ways to manage the use of electricity or natural gas.

# Fireplace Damper Program

Residential Home Improvement Portfolio

## Measures Incorporated within the Program:

Roof top dampers for wood burning fireplaces.

### **Program Objectives:**

Provide an incentive for installing fireplace dampers to reduce the amount of heat loss through a chimney.

## Key Avista Staff:

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

# Target Market(s):

The fireplace damper program is available to single-family residential buildings (up to a fourplex), both 'stick-built' and manufactured homes that have Avista electric or natural gas as their main heating source. Incentives are available only for retrofit installations. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications departments.

## **Program Overview:**

The program targets customers who have wood burning fireplaces. Although aesthetically pleasing, the wood-burning fireplace is an inefficient way to heat a home. Heated air is pulled up through the chimney when the fireplace is in use. One way to save energy is to use the fireplace sparingly and close the fireplace damper when not in use. This will allow a reduction of heat loss for the electricity or natural gas that may be heating the home when the fireplace is not in use. The program does not permit the fireplace damper to be installed if there are other combustion appliances using the chimney as an exhaust.

Implementation Plan:

The fireplace damper program benefits from the awareness generated by the ongoing *everylittlebit* campaign. The tag line: Every Little Bit helps allows the homeowner to consider any and all options to save energy.

The program guidelines and parameters for rooftop dampers have recently been incorporated under the Home Improvement Incentive form. By providing the customer with another option in the selection of various energy efficient measures has resulted in program participation for this measure to increase in 2011.

# **Energy Star Homes Program**

#### Residential New Construction Portfolio

### Measures Incorporated within the Program:

The Energy Star Home program has two eligibility definitions that are considered for participation. The first is for new construction homes that have Avista electric or have both Avista electric and natural gas that meet the criteria and are verified as an Energy Star Homes. Avista electric and/or natural gas service must be used to heat both the living space and hot water.

The second definition is for new construction homes that have only Avista natural gas. The customer may have electricity from another provider. Avista natural gas service must be used to heat the home and hot water to be eligible for the Energy Star program.

These measures may not be combined with any other incentive offered under the Residential New Construction portfolio or the Energy Efficient Appliance Program.

### **Program Objectives:**

Provide an incentive for area home builders to construct Energy Star homes in Avista's service territory.

#### **Key Avista Staff:**

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

#### Target Market(s):

The Energy Star Home program is available to single-family residential buildings (up to a fourplex), including 'stick-built' and manufactured homes. Incentives are available for new construction only. Key external stakeholders include builders, property owners, real estate agents, financial institutions (e.g. banks, mortgage companies, title companies) and homeowners. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications departments.

## **Program Overview:**

The Energy Star Home program leverages the regional and national effort surrounding Department of Energy and Environmental Protection Agency's Energy Star label. Avista and partnering member utilities of the Northwest Energy Efficiency Alliance (NEEA) have committed significant resources to develop and

implement a program that sets standards, trains contractors and provides 3<sup>rd</sup> party verification of qualifying homes. NEEA in effect administers the program and Avista pays the incentive for homes that successfully make it through the process and are labeled Energy Star. Additionally, after the launch of NEEA's regional effort, the manufactured homes industry established manufacturing standards and a labeling program to obtain Energy Star certified manufactured homes. While the two approaches are unique, they both offer 15-25% savings versus the baseline and offer comparable savings.

## Implementation Plan:

The Energy Star Home program promotes to builders and home owners a sustainable, low operating cost, environmentally friendly structure as an alternative to traditional home construction. Avista offers both electric and natural gas and as a result has structured the program to account for homes where either a single fuel or both fuels are utilized for space and water heating needs.

# High Efficiency HVAC Equipment Program

Residential New Construction Portfolio

## Measures Incorporated within the Program:

The high efficiency HVAC equipment program for new construction consists of the following measures: natural gas furnace or boiler with AFUE of 90% or greater; ducted air source heat pump with HSPF of 8.5 (manufactured homes must have HSPF of 7.7 and 13 SEER); ductless heat pump with HSPF of 9.0 and variable speed motor incorporated into a primary heating system.

# **Program Objectives:**

Offer customers an incentive for choosing high efficiency equipment heating equipment to install in their residence.

### **Key Avista Staff:**

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

The high efficiency HVAC equipment program is applicable to single-family residential buildings (up to a fourplex), both 'stick-built' and manufactured homes. Incentives are available in new construction and retrofit installations. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications departments.

### **Program Overview:**

As noted above this program offers customers an incentive if they choose a high efficiency piece of equipment over a standard efficiency model. The incentive encourages the customer to increase the efficiency of their equipment as they are building a new home.

#### Implementation Plan:

Delivering on the objectives of this program are the direct-incentives and marketing efforts and ongoing work with trade allies.

The high efficiency HVAC equipment program is an integral part in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights. Installing high efficiency equipment is usually a large ticket item in terms of capital expense. However, the customers will see the benefit in the form of lower energy usage. As a duel fuel utility, Avista does promote both high efficiency electric and natural gas equipment options. While the direct use of natural gas is preferred, many Avista customers are in rural areas without natural gas availability. Therefore the offering of an incentive for the installation of a high efficiency air source heatpump or a ductless heatpump system allows more customers the opportunity to participate in the program.

# Water Heater Equipment Program

Residential New Construction Portfolio

## Measures Incorporated within the Program:

The water heater equipment program consists of the following measures: tank type water heaters: electric 50 gallon, efficiency rating (EF) of 0.93 or greater; natural gas 40 gallon, EF 0.62; natural gas 50 gallon, EF 0.60

# **Program Objectives:**

Offer customers an incentive for choosing high efficiency water heaters to install in their residences at the time of new home construction.

## Key Avista Staff:

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include but are not limited to: coordinating program marketing efforts including collateral materials, announcements and process improvements; handling customer questions and concerns and working with key trade allies and retailers.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

Roxanne Williams is the DSM Data Entry Clerk responsible for the majority of data-entry tasks and will be part of the transition to an electronic application process and automated rebate system.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

The high efficiency water heater program is available to single-family residential buildings (up to a fourplex), both 'stick-built' and manufactured homes. Incentives are available in new construction as well as retrofit situations. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's contact center, accounts payable, marketing and corporate communications.

# **Program Overview:**

As noted above this program offers customers an incentive if they choose a high efficiency water heater over a standard efficiency model. The incentive acknowledges the customer's choice to increase the efficiency of their equipment as they are building a new home.

### Implementation Plan:

Delivering on the objectives of this program are the direct-incentives, marketing efforts and ongoing work with trade allies.

The high efficiency water heater equipment program is an integral part in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights. Installing high efficiency equipment is usually a large ticket item in terms of capital expense. However, over the long term, the customers will see the benefit in the form of lower energy usage. Avista does promote both high efficiency electric and natural gas equipment options. While the direct use of natural gas is preferred, many Avista customers are in rural areas without natural gas availability. Therefore the offering of an incentive for the installation of either a high efficiency electric or natural gas water heater allows more customers the opportunity to participate in the program.

# Multi-Family Natural Gas Market Transformation Program

Residential New Construction Portfolio

## Measures Incorporated within the Program:

The Multi-Family, Natural Gas, Market Transformation program measures are for the installation of natural gas space and/or water heating equipments in multi-family buildings larger than a 5-plex.

# **Program Objectives:**

Provide an incentive for developers to construct multi-family developments with natural gas space and water heating.

# **Key Avista Staff:**

Renee Coelho is the Program Manager responsible for managing policy and implementation including tracking of energy savings and payments.

Sue Baldwin is the Account Executive in charge of program implementation including contacting potential builders and coordinating program marketing efforts,

Tom Lienhard provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

### Target Market(s):

New construction, multi-family complexes that consist of a 5-plex or more that may normally have electric space and water heating equipment installed. Retrofit situations can be considered. Key external stakeholders include building owners, property management companies, renters and trade allies. Key internal stakeholders include Avista's Energy Solutions, Operations, Natural Gas Engineering, Marketing, and Corporate Communications departments.

#### **Program Overview:**

Developed in 2008, this pilot program is intended to prompt building owners and developers to consider natural gas as the fuel of choice when constructing multi-family housing. Often these buildings are constructed with little consideration given to tenants needs to have an energy efficient home and along with it a manageable energy bill. Frequently tenants in these types of scenarios are young families, young adults, or seniors with fixed incomes. With the direct use of natural gas as the most efficient way to heat along with a low number of natural gas heated multifamily complexes in the Avista service area, this pilot program was developed.

New construction single family homes are normally built with natural gas or in most cases have an opportunity to convert. That is not the case for multifamily housing. By ensuring that sufficient demand exists for this type of living situation, the program is trying to help spur the increase of inventory of natural gas rental units. Lacking this inventory the customer will often not have any choice but to live in an all electric heat complex.

This program offers incentives to builders and developers for the conversion to natural gas by installing standard efficiency space heat and water heaters. High-efficiency natural gas equipment installations will be considered under the company's site specific program.

# Implementation Plan:

Avista Account Executive Sue Baldwin is the primary contact person for this program's implementation. Her work with area developers, contractors, architects and other building professionals allows her to identify when new projects are under consideration. To provide education on natural gas heating in a multi-story building with individual heating needs – Sue and DSM Engineer, Tom Lienhard have researched the technologies in the market and have visited cities where these buildings exist and thrive. This is the knowledge base that is brought to these key stakeholders to make them think twice about the equipment that is installed in these buildings.

# **Energy Efficient Appliance Program**

#### **Residential Sector**

# Measure Incorporated within the Program:

# **Energy Star Appliance Rebate Program**

Energy Star rated Freezer

**Energy Star rated Refrigerator** 

Energy Star rated Dishwasher-Electric Water Heated-discontinued

Energy Star rated Dishwasher-Natural Gas Water Heated-discontinued

Energy Star rated Clothes Washer-Electric Water Heated

Energy Star rated Clothes Washer-Natural Gas water Heated

### Second Refrigerator and Freezer Recycling Program

Recycled Freezer Recycled Freezer- 2<sup>nd</sup> unit Recycled Refrigerator Recycled Refrigerator-2<sup>nd</sup> unit

### **Program Objectives:**

# Energy Star® Appliance Rebate Program:

This program is intended to prompt the customer to increase the energy-efficiency of their appliances through direct financial incentives. It indirectly supports the infrastructure and inventory necessary to ensure that the installation of high-efficiency equipment is a viable option for the customer.

# Second Refrigerator or Freezer Recycling Program:

This program is intended to prompt the customer to decrease their energy used on inefficient second refrigerators or freezers by recycling and receive financial incentives. JACO Environmental Inc. (JACO) picks up to two Refrigerators and/or Freezers (units) from a customer's home when they request a pick-up. The pick-up service is free to the customer. A \$30 rebate is provided for each operational refrigerator and/or freezer, up to two per household. The pre-1995 refrigerator(s) or freezer(s) are picked up and delivered to a recycling facility operated by JACO. JACO recycles nearly 95 percent of each refrigerator, and safely dispose of the toxins and ozone-destroying chlorofluorocarbon gases from foam insulation. JACO works with local businesses to recycle glass, plastic and metal.

# **Key Avista Staff:**

### Energy Star® Appliance Rebates:

Camille Martin is designated as the current Program Manager. Program management responsibilities include ongoing process evaluations, coordinating program marketing efforts, working with key trade allies, performing outreach to retailers, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. The program coordinator is Sandra Hoye who

works with the processing team of contract employees and students to perform data entry duties for this program.

Tom Lienhard is the primary technical resource for the program. Analytical and evaluation support is coordinated through Avista Policy, Planning and Analysis Team.

# Second Refrigerator or Freezers Recycling Program:

Camille Martin is designated as the current Program Manager. The program contractor is JACO Environmental, Inc. (JACO) who manages the turn-key program that includes marketing, customer call center (customer unit pick-up requests & scheduling and complaints) haul-away, unit dismantling & recycling, administration of program and rebate processing as well as serving as primary contact for internal and external inquiries.

Tom Lienhard is the primary technical resource for the program. Bob Nicholas is JACO's primary contact for the Second Refrigerator or Freezer Recycling Program.

## Target Market(s):

### **Energy Star® Appliance Rebates**

This is applicable to residential gas and electric customers seeking to purchase energy efficient appliances, in Washington and Idaho. Both new construction and retrofit purchases may apply. Key external stakeholders include homeowners, landlords (and renters) and businesses. Key internal stakeholders include contact center, accounts payable, marketing and corporate communications.

#### Second Refrigerator or Freezers Recycling Program:

This is applicable to residential electric or electric/gas combo customers seeking to recycle energy inefficient refrigerators or freezers, in Washington and Idaho. Key external stakeholders include JACO, homeowners, renters and landlords. Key internal stakeholders include contact center, accounts payable, marketing and corporate communications.

### **Program Overview:**

# **Energy Star® Appliance Rebates**

This program has been designed for ease of use by Avista electric and natural gas residential customers in Idaho and Washington. Currently, any new Energy Star® rated freezers, refrigerators, dishwashers and clothes washers are rebated as part of this program. Rebates are applicable to new or existing single and multi–family residences, including manufactured, modular homes and domestically used in businesses. This program is intended to prompt the customer to increase the energy-efficiency of their appliances through direct financial incentives. It indirectly supports the infrastructure and inventory necessary to ensure that the availability and variety of high-efficiency appliances for the customer.

By ensuring that sufficient demand exists for these appliances it is expected that an adequate inventory of high-efficiency appliances will exist to justify maintaining them in inventory. Incentives also encourage customers to replace operative non-efficient appliances to reduce the energy use in their home.

#### Second Refrigerator or Freezers Recycling Program:

This program is intended to prompt the customer to decrease their energy used on inefficient second refrigerators or freezers by recycling and receive financial incentives. JACO Environmental Inc. (JACO) picks up to two Refrigerators and/or Freezers (units) from a customer's home when they request a pickup. The pick-up service is free to the customer. A \$30 rebate is provided for each operational refrigerator and/or freezer, up to two per household. The pre-1995 refrigerator(s) or freezer(s) are picked up and delivered to a recycling facility operated by JACO. JACO recycles nearly 95 percent of each refrigerator, and safely dispose of the toxins and ozone-destroying chlorofluorocarbon gases from foam insulation. JACO works with local businesses to recycle glass, plastic and metal.

# Implementation Plan:

### **Energy Star® Appliance Rebates**

The key drivers to delivering on the objectives of this program are the direct-incentives to fuel customer interest, marketing efforts to drive customers to the program and ongoing work with retailers to ensure that customer demand can be met.

The Energy Star® Appliance Rebate Program is an integral consideration in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights.

Key to success is clear communication to customers on rebate requirements and forms. Utility websites are also channels to communicate program requirements and highlight opportunities for customers. In 2012, dishwashers will be discontinued as an inclusion in the Energy Star® Appliance Rebate Program, due to the free ridership issues (75% of all dishwashers are Energy Star® rated) associated with dishwashers. Any changes should have advance notice for customers in the form of 90 days to submit under old requirements. This usually includes at a minimum direct mail communication to retailers as well as internal, forms and website updates.

Clothes Washes, currently is under evaluation, and may be discontinued, depending on the results of the evaluation.

# Second Refrigerator or Freezers Recycling Program:

The key drivers to delivering on the objectives of this program are the direct-incentives to fuel customer interest, and marketing efforts to drive customers to using the program.

The Second Refrigerator Recycling Program is an integral consideration in the ongoing *everylittlebit* campaign. The campaign builds broad awareness for energy efficiency as well as specific programmatic highlights.

Key to success is clear communication to customers on unit pick-up services, recycling and rebate requirements. Utility websites are also channels to communicate program requirements and highlight opportunities for customers.

# Low Income Energy Efficiency Program

Low Income Residential Portfolio

## Measures Incorporated within the Program:

The low income energy efficiency program consists of the following measures: insulation measures for ceiling, wall, floor and duct; air infiltration measures, electric to natural gas conversions for space and water heat; high efficiency furnace or water heater, Energy Star refrigerator, Energy Star windows and Energy Star doors.

### **Program Objectives:**

Provide low income customers the installation of energy efficiency measures through local community action agencies.

### **Key Avista Staff:**

Renee Coelho is the Program Manager responsible for coordinating all implementation aspects of the program that include: liaison between the Company and the Community Action Agencies, coordinating annual contracts, implementing program protocol and participating on state advisory committees.

Rachelle Humphrey is the Program Coordinator responsible for program tracking, analysis, data entry review and database management.

The entire Energy Solutions Engineering team, with an emphasis from Mike Dillon, provides technical resource support including engineering calculations and inspections.

The Policy, Planning and Analysis team provides analytical and evaluation support.

# Target Market(s):

This is applicable primarily to existing single-family residential buildings, both 'stick-built' and manufactured homes. CAP agencies have flexibility to treat retrofit, new construction and are encouraged to identify strategies to reach multifamily and renters. Key external stakeholders include homeowners, landlords (and renters), and trade allies. Key internal stakeholders include Avista's rates, contact center CARES reps, accounts payable and community development departments.

### **Program Overview:**

The limited income CAP agencies focus primarily on shell measures and improvements. They offer ceiling/attic, wall, floor and duct insulation. The complete blower door tests to assess infiltration opportunities and complete extensive infiltration measures as applicable. When infiltration measures are completed a post-blower door test is also completed to estimate savings.

The CAP agencies complete a site-specific home energy audit to determine which shell measures will be completed as well as identifying other opportunities to make energy efficiency improvements. Other opportunities include replace existing electric straight resistance heat with natural gas, for both space and water heating needs. The measure includes necessary piping and venting to convert the existing home and in some cases the addition of duct-work as well. For customers to qualify for a conversion project they must demonstrate they heat primarily with electric heat. A bill analysis is completed that estimates the electric usage devoted to space heating to arrive at what is called an R-number. A customer must have a minimum R-number of 4,000 to qualify for a conversion to natural gas. High

efficiency furnaces or water heaters can be installed at the time of the conversion as well to eliminate the lost opportunity of that efficiency measure.

This program also covers the installation of Energy Star refrigerators prescriptively for replace before burn out situations where the refrigerator is older than 1992 vintage. There is also an option to install Energy Star refrigerators in replace upon or immediately before burn out situations with prior written approval. Energy Star Doors are also available if identified as an opportunity as well as Energy Star windows measures for single pane or broken windows.

# Implementation Plan:

Avista contracts with six community action agencies (CAP) through the service territory to implement the energy efficiency program for our low income customers. The CAP agencies have the infrastructure in place to income qualify potential participants as well as provide the audit and installation of the identified measures. All agencies receive federal Department of Energy funding through their respective states and follow the rules and regulations associated with the distribution and implementation of that funding. Avista's program is set up to mimic the state/federal guidelines with a few exceptions. These include: allowing flexibility in what energy efficiency measures the agency chooses to fund; applying to electric or natural gas improvements without limitations and can be used for electric to natural gas conversion measures for both space and water heat applications.

Avista is in communication with the agencies throughout the year to field various program implementation questions, confirm customer usage, process invoices and attend home audits and inspections.