



# Avista Utilities

Washington / Idaho

2015 Demand-Side Management Business Plan

October 31, 2014

**Avista 2015 DSM Business Plan**

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## I. Executive Summary

Consistent with RCW 19.285.040(1), and requirements outlined in Commission Order No. 01 in Docket No. UE-132045, approving Avista's 2014-2015 Biennial Conservation Plan with conditions, and the Idaho Public Utilities Commission (IPUC) Staff DSM Memorandum of Understanding (MOU).<sup>1</sup>

In the following pages, Avista Utilities' describes the Company's planning process and planned expenses as well as the projected energy savings for the implementation of its energy efficiency programs for the 2015 calendar year. This Plan also describes how Avista's programs are structured and delivered to customers. It provides a "bottom-up" analysis built by measure and/or program.

The term "conservation" will be used interchangeably with energy efficiency and demand-side management throughout this document. Although not required as a part of RCW 19.285, Avista also includes its natural gas programs in this 2015 Business Plan (Plan).

This business planning document is intended to be a continuous planning process. The Company is committed to maintain, and enhance meaningful stakeholder involvement within this process. Over the course of the following year, revisions and updates to the plan are to be expected as part of adaptively managing the DSM portfolio.

Throughout the business planning process, cost-effectiveness remains a critical focus of the portfolio. The process leads to a projection of the cost-effectiveness performance of the DSM portfolio, and is based upon the assumptions made within the Plan. The DSM Annual Report<sup>2</sup> reviews the cost-effectiveness of the prior year based upon actual performance. Historically, business planning projections have been well correlated to actual performance, except when significant programs not previously anticipated within the Plan are launched mid-year. Avista continues to strive for innovation around new programs and incorporation of emerging technologies; even though this continues to be challenging given lower avoided costs.

This 2015 DSM Business Plan documents the planning effort for three Avista DSM local portfolios; Washington electric, Idaho electric and Washington natural gas portfolios. The Idaho natural gas local portfolio is currently suspended; however will be the subject of a future review built off of this business planning effort to determine if a cost-effective portfolio is feasible. The cost-effectiveness of each of these portfolios is represented within the Illustration below.

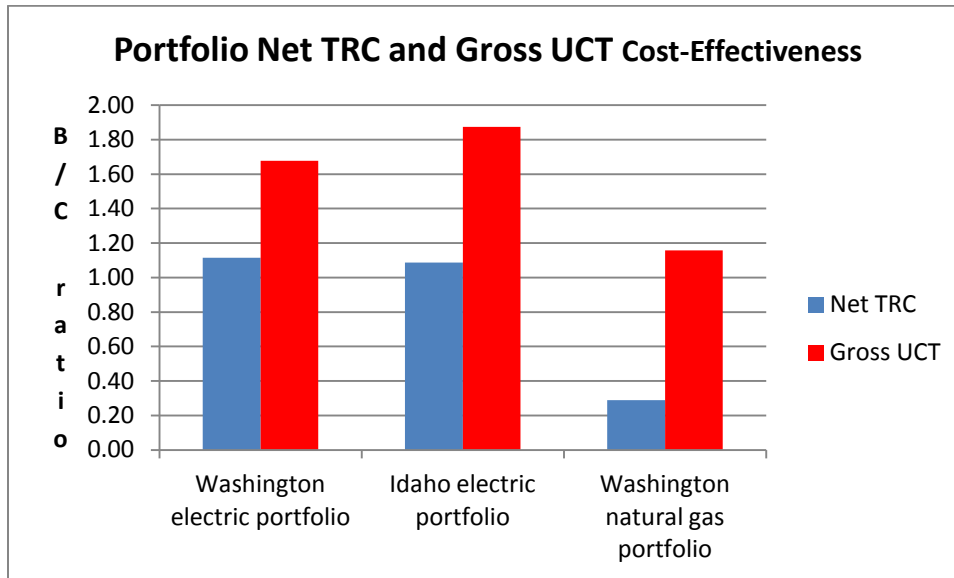
Many sections in this Plan will reference and summarize supporting Exhibits, which provide a substantial amount of detailed, important information.

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<sup>1</sup> Appended to the Plan is the Company's "2015 Evaluation, Measurement & Verification Annual Plan."

<sup>2</sup> Filed on or before June 1 annually.

Illustration No. 1: Jurisdictional portfolio TRC and UCT cost-effectiveness benefit-to-cost ratios



## **II. Introduction**

In 2014 the Company carefully reviewed specific suggestions and recommendations from external evaluators as well as Commission Staff regarding DSM program management. This effort included a thorough review of the Company’s DSM implementation practices, as well as a renewed focus on the employment of utility best practices related to DSM program implementation and oversight. In June 2014, the Energy Efficiency Group was reorganized under one leader; Program Managers, the Implementation Team, and the Policy, Planning, and Analysis members report centrally to the Sr. Manager of Energy Efficiency. The fully integrated team is committed to developing, designing, and implementing cost effective programs for our customers.

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

The Company's programs are delivered across a full customer spectrum. Virtually all customers have had the opportunity to participate and a great many have directly benefited from the program offerings. All customers have indirectly benefited through enhanced cost-efficiencies as a result of this portfolio approach.

The business planning process builds upon the electric and natural gas Integrated Resource Plan (IRP) and Conservation Potential Assessment (CPA) processes. These processes are an overall resource planning process completed every two years that integrate energy efficiency and generation resources into a preferred resource scenario. It is the purpose of the business plan to create an operational strategy for reaching the aggregate targets identified within the IRP in a manner that is cost-effective and with due consideration to all aspects of customer value.

The annual planning process also leads to the identification of infrastructure and support needs such as:

- defining the necessary labor complement;
- establishment of an annual budget;
- review of and modification to the measurement, evaluation and verification (EM&V) plan;
- identification of outreach requirements; and
- organization of a marketable customer-facing portfolio.

The budgetary projections established within the business plan are applied in a separate mid-year process to revise the DSM tariff rider funding mechanisms contained within the Schedule 91 electric and Schedule 191 natural gas tariffs. The tariff rider surcharges are periodically adjusted with the objective of moving these balances towards zero.

The substantial reductions in the avoided cost of natural gas and, to a somewhat lesser extent, electricity that has occurred and been recognized within the IRP processes in recent years continue to impact the quantity of the cost-effective DSM resources available and how these resources are best acquired. In addition to fewer efficiency measures being cost-effective in the lower avoided cost environment, those measures that are incrementally cost-effective have less residual value to offset relatively fixed infrastructure cost.

As one reads this compilation of the business planning process it should be understood that the falling avoided costs permeate throughout all phases of DSM operations and will require considerable innovation and flexibility in order to continue to deliver value to the customer. This Business Plan represents the continuation of that ongoing adaptation to meet these challenges.

### **III. Key Considerations**

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

Within its DSM portfolio, Avista incorporates EM&V activities to validate and report verified energy savings related to its energy efficiency measures and programs. EM&V protocols serve to represent comprehensive analyses and assessments necessary to supply useful information to management and stakeholders that adequately identifies the acquisition of energy efficiency attributable to Avista's DSM Programs as well as potential process improvements necessary to improve operations both internally and for customers. EM&V includes Impact, Process, and Market 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 is to support the ongoing activities of the third-party EM&V consultants and evaluators performing the various analyses required to substantiate the conservation acquisition, determine market saturation and penetration, and process evaluations. The 2015 EM&V budget provides for third-party EM&V services that provide an evaluation of 2014 program year portfolio, along with consolidating these findings with results obtained for 2015 for reporting requirements associated with the state of Washington Energy Independence Act (EIA) biennium. For Idaho, 2014 savings will be measured, verified, and reported during 2015. These findings are reported in the Demand Side Management Annual Report and include analysis of both program and process impacts for the specific programs reviewed.

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

The Technical Reference Manual (TRM) will be managed as a principal planning and reporting document relative to individual prescriptive measures, their respective unit energy savings (UES) values and accompanying assumptions and sources. The TRM will serve as the compilation of UES values linking the planning and reporting phases of DSM activities and will be updated annually as informed by evaluation findings.

EM&V efforts will also 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 Northwest Power and Conservation Council (NPCC). These programs may include educational, behavior change, and other types of investigatory projects. Specific activities can include product and application

document reviews, development of formal evaluation 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 regional efforts, Avista staff has Voting Member roles on the Regional Technical Forum (RTF) that serves as an advisory committee to the NPCC. The RTF is a primary source of information relating to the standardization of energy savings and measurement processes for electric applications in the Pacific Northwest. This knowledge base provides energy efficiency data, metrics, and references that are suitable for inclusion in Avista's TRM relating to 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. Portions of the energy efficiency savings acquired through NEEA's programs within the region are attributable to Avista's portfolio

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 and Verification Protocol serves as the guidelines for measurement and verification plans applied to Avista programs. Additionally, the recent compilation of EM&V protocols released under the U.S. Department of Energy's Uniform Methods Project will be considered and applied where possible to support consistency and credibility of the reported results. The verification of a statistically significant number of projects is often extrapolated to verify and perform impact analysis on complete programs within reasonable standards of rigor and degree of conservatism. This process serves to insure Avista will manage its DSM portfolio in a manner consistent with utility and public interests.

### [Cost-Effectiveness Metrics, Methodology and Objectives](#)

The Company estimates the expected net Total Resource Cost (TRC) and gross Utility Cost Test (UCT) portfolio cost-effectiveness for the planned year. It is often useful to disaggregate the portfolio into various components based upon the jurisdiction, fuel, income eligibility or program criteria. The test against which the portfolio is optimized is dependent upon the jurisdiction and fuel. The Washington electric portfolio is optimized against a net TRC metric while the Washington natural gas portfolio is measured against a gross UCT metric. The Idaho electric portfolio is expected to simultaneously pass the TRC, UCT and the Participant Cost Test (PCT).

The Company provides the highest possible value for the cost-effectiveness metric applicable to each program, maximizing the residual benefits (benefits less costs) of the applicable metric. This choice plays an important role in the Company's planning process and the development of the final portfolio in three ways:

1. By maximizing the portfolio residual benefits the Company will seek to add measures and programs to the extent that the incremental benefits of that resource option exceeds the incremental cost. This approach precludes the rejection of measures or programs that favorably contribute to the cost-effectiveness of the portfolio, but are not able to bear the non-incremental infrastructure cost that would be assigned to the program.
2. By only burdening measures and programs with the costs that are incremental to them at each level of aggregation, the potential for a 'death spiral' is reduced. If each measure were required to bear their fully allocated (including non-incremental) costs, incrementally cost-effective measures would potentially fail and, by being excluded from the portfolio, increase the non-incremental cost allocation to be borne by other measures.
3. In comparison to simply establishing a benefit-to-cost ratio in excess of 1.00 as a target, Avista's chosen approach leads to a larger portfolio as well as one which has higher residual benefits. It does this by providing a means for accepting cost-effective but marginal measures and programs that favorably contribute to the portfolio's residual benefits, but may reduce the overall portfolio benefit-to-cost ratio.

Details regarding how Avista applies the cost-effectiveness methodology to the estimation of the 2015 portfolio are contained in Appendix C to this document. The results of the net TRC and gross UCT tests are summarized by program and portfolio in Section V.

### Integrated Resource Planning and Conservation Potential Assessments

Avista completes separate electric and natural gas Integrated Resource Plans (IRP) every two years. Each plan has a twenty year horizon. These processes incorporate a Conservation Potential Assessment (CPA) completed by a third-party evaluator. The CPA collects and assesses all identifiable measures and develops a conservation supply curve which can be incorporated into the larger IRP process to define the cost-effective achievable acquisition. Within Washington, the electric achievable energy efficiency acquisition identified becomes the foundation for the Biennial Conservation Plan (BCP) process and ultimately the establishment of the EIA acquisition target for the future biennium.

The Company recently filed a natural gas IRP in both Washington and Idaho (August 31, 2014). That process identified an achievable acquisition of 1,677,000 first-year therms in Washington based upon the gross UCT test. The acquisition identified in this process is without regard to how the energy savings are to be achieved; the savings may occur through local utility programs, regional market transformation programs or without any utility intervention at all.

Avista is currently engaged in completing an electric CPA and IRP process that will lead to the identification of the twenty-year resource potential to include the achievable potential for energy



efficiency during the 2016/2017 biennium. This identified efficiency potential will be adjusted to remove overlapping expected regional market transformation, fuel-efficiency and behavioral program acquisition, as well as add anticipated distribution efficiency and reductions to certain generation parasitic loads, thereby becoming the Company's proposal for the next EIA acquisition target.

The Applied Energy Group (AEG) has been selected for the in-progress electric CPA. AEG is employing accepted Northwest Power and Conservation Council methodologies to the extent possible, to include the use of unit energy savings for measures identified by the RTF. Where such UES are not available, AEG will utilize the best estimate of what future third-party impact evaluation will reveal. AEG is currently in the process of updating inputs for the CPA to include indexing the CPA to the forecast and other economic factors.

### Schedule 90 and 190 Revisions

Avista's electric DSM operations are governed by Schedule 90 tariff requirements and natural gas DSM operations are governed by Schedule 190. These tariffs (attached within Appendix E) detail the eligibility and allowable funding that the Company provides for energy efficiency measures. Though the tariff allows for considerable flexibility in how programs are designed and delivered and accommodates a degree of flexibility around incentives for prescriptive programs subject to reasonable justification, there remains the occasional need to modify the tariff to meet current and future market conditions and opportunities.

During 2014, the Company proposed and discussed with the DSM Advisory Group, and ultimately filed for a revision to the Washington and Idaho Schedule 90 tariff to increase the incentives available for fuel-efficiency projects. The revision transitioned from a tiered structure of 1 to 7 cents per first-year kWh to the same tiered incentive structure applicable to all other electric efficiency projects granting between 8 and 20 cents per first-year kWh (for projects with simple paybacks of one to twenty years). The request for this revision was motivated by the Company's inability to adequately penetrate growing cost-effective efficiency lost opportunities created by home foreclosures and renovations.

With the regulatory approval of this proposal effective September 15, 2014, the Company launched a revised residential fuel-efficiency program. The program includes a new prescriptive program for natural gas wall heat for application to unducted homes. The current expectations for this enhanced program are represented within the projection of 2015 portfolio performance and the program plan is attached within Appendix A. The increased Schedule 90 incentives are also available to non-residential customers through the site-specific program.

The Company also received approval for a Washington Schedule 90 tariff revision to allow for the potential future funding of demand response programs. The revision allows the Company to provide incentives of up to 75% of the value of any capacity secured through this program. At this time the Company does not have any active demand response programs. The Company has selected Applied Energy Group to complete an assessment of demand response potential, which will be completed at the end of November 2014.

Idaho's Schedule 90 tariff was not revised for demand response, however the Company would consider requesting the same treatment in a future filing.

The current business planning process did not identify any further tariff revisions necessary for 2015.

### Washington Energy Independence Act Standards for the 2014-2015 Biennium

Washington Energy Independence Act (EIA) requirements establish a minimum electric acquisition standard for conservation resources for each designated biennium. The acquisition requirement can be met with local DSM programs, distribution efficiency acquisition or reductions in generation parasitic load. Acquisition from behavioral programs (to include any acquisition from the current or expanded Opower programs) was specifically included as an eligible measure for the 2014/2015 period. Fuel efficiency efforts (electric to natural gas conversions) and acquisition attributed to Avista through regional market transformation have been excluded from the acquisition target and are not an eligible measure towards achieving that target.

For the 2014/2015 biennium the aggregate conservation acquisition requirement is 64,956 MWh. As part of the pending General Rate Case Settlement Agreement in Docket Nos. UE-140188 and UG-140189, the Company agreed, in consideration for receiving a full electric decoupling mechanism, to increase its electric energy conservation achievement by 5% over the conservation target approved by the Commission, beginning with the 2014-2015 biennial target. The scope of the DSM Business Plan covers the majority of the acquisition eligible to achieve this target but does not include efficiencies achieved through distribution or generation facilities. Section V projects the contribution that is anticipated to be achieved through the eligible DSM measures only. Since the planning process has led to the expectation that the acquisition target will be achieved, the Company has not designed, and is not currently considering any contingency programs to increase acquisition to meet the target.

Since the Washington EIA target was established based upon Northwest Power and Conservation Council methodologies and the Council's RTF UES, those same methodologies and savings are employed, to the extent possible, in measuring the savings eligible to achieve that target. The business planning effort has, with a few isolated exceptions, adopted the same approach so as to generate the best prediction of how 2015 portfolio performance will be retrospectively measured. The use of RTF UES also assists in the management of the Company's evaluation, measurement and verification (EM&V) expense by eliminating the need for impact evaluation of RTF endorsed measures.

## IV. DSM Portfolio Overview

### Residential Portfolio Overview

The Company's residential portfolio is composed of several approaches to engage and encourage customers to consider energy efficiency improvements within their home. Prescriptive rebate programs are the main component of the portfolio, augmented by a variety of other interventions. These include: upstream buy-down of low-cost lighting and water saving measures, select distribution of low-cost lighting and weatherization materials, appliance recycling program, direct-install programs and a multi-faceted, multichannel outreach and customer engagement effort.

Prescriptive rebate programs use financial incentives to encourage customers to adopt qualifying energy efficiency measures. Customers must complete installation and apply for a rebate, submitting proper proof of purchase, installation and/or other documentation to Avista, typically within 90 days from project completion. Customers can submit this form in hard copy and several prescriptive measures are also available to submit online at [www.avistautilities.com](http://www.avistautilities.com).

Residential prescriptive programs typically cover single family homes up to a four-plex. For multifamily situations (five-plex or larger), owners/developers may choose to treat the entire complex with an efficiency improvement. In these unique cases, the projects are treated as a commercial project and are evaluated within the site-specific portfolio or the prescriptive commercial windows and insulation program.

Avista offers other programs delivered to residential customers through third-party contractors. These include: refrigerator and freezer recycling, the manufactured home duct sealing program (this effort is sunsetting at the end of 2014 however similar direct install efforts with co-funding may be a possibility in 2015) and regional manufacturer buy-downs for small devices such as compact fluorescent lamps, LEDs and showerheads.

For both Washington and Idaho electric, a measure-by-measure evaluation of the incremental contribution to the Total Resource Cost (TRC) test cost-effectiveness of the portfolio is the primary guidance in reaching decisions regarding measure eligibility for measures. For natural gas in Washington, the Utility Cost Test (UCT) is also applied. In the event that a previously offered measure is no longer cost-effective, a transition plan is initiated to equitably treat customers who were in or about to commit to participating in the program. Typically a minimum 90-day notice is provided prior to the termination of the program.

Residential programs have a strong presence and coordination with regional efforts, such as those offered by the Northwest Energy Efficiency Alliance (NEEA). Currently there are significant regional efforts active in the markets for ENERGY STAR homes, consumer electronics, ductless heat pumps, and standard improvements for new heat pump water heating technologies. Avista has offered local rebates in support of many of the NEEA market transformation ventures and will continue to do so where opportunities for local leveraging of these programs are cost-effective options.

## Low Income Portfolio Overview

As mentioned previously, avoided costs for Avista's 2015 Business Plan included lower costs for electricity and continued lower costs for natural gas. As a result, this makes cost effectiveness difficult to achieve, especially for the Low Income portfolio where 100% of the cost was historically paid by the utility so there is less opportunity with the UCT approach. While modifications were made to program implementation in 2014, the end result will not be fully known until mid-2015. Until those results are presented, the Company plans to continue with changes to the low income program implemented in 2014 with the intention of achieving a cost-effective portfolio.

The Company utilizes the infrastructure of six Community Action Partner (CAP) agencies in Washington to deliver low income energy efficiency programs. The CAPs have the ability to income-qualify customers and have access to a variety of funding resources, including Avista funding, which can be applied to meet customer needs. The six agencies receive an aggregate annual funding of \$2,000,000 while the single agency providing service in Idaho receives \$700,000. The distribution of these funds is represented in the table below.

Table 1: 2015 Low Income Funding by CAP Agency

CAP Agency	Counties Served	Funding Allocation
SNAP	Spokane	\$1,335,000
Rural Resources	Ferry, Lincoln, Pend Oreille, Stevens	\$194,000
Community Action Center Whitman County	Whitman	\$146,000
Opportunities Industrialization Council	Adams, Grant	\$75,000
Washington Gorge Action Programs	Klickitat, Skamania	\$10,000
Community Action Partnership (Lewiston)	Asotin	\$240,000
Community Action Partnership (Lewiston)	Serves all ten counties within Avista service territory in Idaho	\$700,000

In Washington, the agencies may spend their annual allocated funds on either electric or natural gas efficiency measures at their discretion as long as the home demonstrates a minimum level of the Avista fuel for space heating use. In Idaho, funds are only spent on Avista electrically heated homes. Both states have included in their annual funding a 15% reimbursement for administrative costs. Health and

safety measures may also be completed with the amount spent on these improvements not to exceed 15% of the agency's total annual contract amount.

To guide the agency toward projects that are most beneficial for the energy efficiency efforts, an "Approved" list of measures is provided that allows for full reimbursement of those, that in most cases, have a TRC of 1 or better. For efficiency measures with a TRC less than 1, a "Rebate" that is equal to the Company's avoided cost of energy is provided as the reimbursement to the Agency.

Both the "Approved" and "Rebate" lists are made available to the agencies during the contracting process so they are aware of the eligible measures and the designated amounts if applicable. Should the Agency have an efficiency opportunity that is not on the "Rebate" list, the Company will review each project individually to determine an appropriate funding amount. The agencies may choose to utilize their Health and Safety allotment towards covering the full cost of the "Rebate" measure if they do not have other funding sources to fill in the difference.

### **Nonresidential Prescriptive Program Overview**

The nonresidential energy efficiency market is delivered through a combination of prescriptive and site-specific offerings. Any measure not offered through a prescriptive program is automatically eligible for treatment through the site-specific program, subject to the criteria for participation in that program. Prescriptive paths for the nonresidential market are preferred for measures that are relatively homogenous in scope and uniform in their energy efficiency characteristics.

Prescriptive paths do not require pre-project contracting, as the site-specific program does, and thus lend themselves to streamlined administrative and marketing efforts.

Incentives are established for these prescriptive programs by applying the incentive formula contained within Schedules 90 and 190 to a prototypical installation. Actual costs and savings are tracked, reported and available to the third-party impact evaluator. Many but not all of the prescriptive measures utilize RTF UES.

### **Nonresidential Site-Specific Program Overview**

Avista offers nonresidential customers the opportunity to propose any energy efficiency project with documentable energy savings and a minimum ten year measure life (except for those eligible for a prescriptive offering) for a technical review and potential incentive through the site-specific program. Multifamily residential developments may also be treated through the site-specific program when all or a large number of the residences and common areas are treated. The determination of incentive eligibility is based upon the projects individual characteristics as they apply to the Company's Idaho and Washington electric Schedule 90 or Washington natural gas Schedule 190 tariffs. The Company has established written processes and procedures to guide the consistent calculation of project incentives. Among other tools, the Company maintains an Excel model (Dual Fuel Incentive Calculator or DFIC) to perform these calculations and conducts technical and administrative checks known as the "Top Sheets."

The site-specific program has historically been one of the more cost-effective portions of the DSM portfolio, as well as generating a substantial share of the energy savings. The year-to-year program performance can be somewhat variable due to the timing of large projects.

The incentives available under the site-specific program are based upon a tiered incentive structure established within Schedule 90 (for Washington and Idaho electric efficiency) and Schedule 190 (for Washington natural gas efficiency). The incentive tiers are based upon the projects energy simple payback; the incremental cost of the efficiency project divided by the incremental annual retail energy savings derived from the project. Associated with each incentive tier is an incentive amount that is granted per first-year kWh or per first year therm (as illustrated below).

#### Incentive Structure for the Site-Specific Program

Incentives for eligible customer-owned renewable measures are based upon metered energy production. The thirteen year maximum energy simple payback within the tariff has effectively excluded renewable energy projects from the program.

The Company's requested and obtained regulatory approval for changes to the Washington and Idaho Schedule 90 tariffs with an effective date of September 15, 2014. These changes included:

##### Schedule 90 (electric efficiency, Washington and Idaho):

Deletion of separate "Electric Efficiency" and "Fuel-Conversion" incentive tier structures (authorizing incentives of 8 to 20 cents per first year kWh and 1 to 7 cents per first year kWh for measures within simple payback ranges respectively) in favor of a single incentive tier structure granting the higher 8 to 20 cents per first year kWh to all projects eligible under the Schedule 90 incentive tiers.

##### Schedule 90 (demand response, Washington only):

An addition to the Funding section of Schedule 90 reading:

Incentives for demand response programs shall not exceed 75% of the calculated capacity present value of the measure if and when an interruption event is triggered.

#### Site-Specific Program- Continuous Improvement

Implementation improvements, either in-progress or recently completed, that will have a positive impact on the site-specific program include:

- Revisions to the site-specific program implementation processes to improve clarity and promote the timely movement of projects through the pipeline.
- The establishment of three checklists (or "Top Sheets"), one to review the energy efficiency evaluation report, one prior to contracting, and a final one prior to the



payment of the incentive, in order to ensure consistent documentation and treatment of each project as it progresses through these processes towards completion.

Program marketing relies heavily upon the Account Executive infrastructure and commercial and industrial energy efficiency outreach. Outreach includes print advertising, customer newsletters, customer meetings and vendor outreach. Account Executives have actively managed accounts, but are also available to any customer based upon the geographic location or industry, and serves as their liaison for all energy needs. A portion of the Account Executives effort is expended on coordinating the customer involvement in both the site-specific and prescriptive energy efficiency programs. The program delivery and engineering teams perform additional outreach to customer groups and support of the program marketing, as well as serving their functions within the program implementation process. Additionally, customers can utilize web tools for automated benchmarking of their energy services or an on-line energy audit using Avista Business Energy Advisor.

The site-specific program savings can be difficult to predict due to large projects with long sales cycles. General economy shift may also impact customer willingness to fund efficiency improvements. Increases in process and eligibility complexity, increases in customer costs to participate beyond the capital investment, and costs for post measurement activities are kept in mind and managed in order to continue to successfully engage customers.

### **Regional Market Transformation**

Avista's local DSM portfolio seeks to influence the decision of customer towards the purchase of cost-effective energy efficiency products and services through a combination of incentives, awareness and addressing barriers to adoption. The local DSM portfolio is intended to be permanent in nature with the understanding that the specific programs and eligibility criteria will be revised over time in recognition of the changing marketplace, technologies and economics. Though these efforts can, and to a degree do, create permanent changes in how our customers make energy choices, it is generally not feasible for Avista to design local programs so as to influence markets that are often regional or national in scale.

Market transformation is an alternate approach to those markets and are defined interventions occurring for a finite period of time, utilizing strategically selected approaches to influence the energy market (customer, trade allies, manufacturers or combinations thereof) followed by an exit strategy. Successful market transformations permanently change the trajectory of markets in favor of more cost-effective energy efficiency choices, well beyond the termination of the active intervention.

Electric utilities within the northwest came together in 1997 to establish and fund a cooperative effort geared towards sustaining market transformation on a regional basis with sufficient scale and diversity to deliver a portfolio capable of delivering a cost-effective electric efficiency resource. That organization, NEEA, will be entering its fifth funding cycle during 2015. Avista has been an active and funding participant of this collaborative effort since the beginning. Over that period of time, NEEA has delivered to Avista and the region some of the most cost-effective electric efficiency resources within

our overall portfolio. Avista has committed to continuing to be part of NEEA for this fifth funding cycle encompassing the 2015-2019 period (inclusive).

It is recognized that the future NEEA portfolio may not be as cost-effective as the past. NEEA's very successful residential lighting efforts, and many other ventures, are difficult to replicate. Nevertheless, there is little doubt that there are cost-effective opportunities that can only be achieved, or that are best achieved, through a regionally cooperative effort. Avista has a high degree of confidence that the NEEA portfolio will succeed, and that Avista's Washington and Idaho customers continue to benefit from these efforts.

For more than a decade regional natural gas utilities, including dual-fuel utilities currently participating in NEEA in their electric role, have prompted discussions of the potential for incorporating natural gas efficiency into NEEA's mission. Recently, these discussions have led to a formal proposal to the NEEA Board of Directors for establishing a separately funded natural gas market transformation portfolio. The Board has approved this proposal, and at the time of the writing of this business plan final budgets and funding allocations are being calculated and funding contracts are being discussed.

Based upon these ongoing events, Avista has incorporated an amount just short of \$100,000 into the 2015 budget to fund the Avista Washington and Idaho share of the NEEA investment. Washington will bear 71% of this amount. There is also an additional \$34,000 in anticipated Oregon funding. The expenditure of the funding provided by utilities is subject to approval by the NEEA Board of Directors.

At present approximately two-thirds of the eligible natural gas utility funding within the northwest have committed to funding the NEEA effort. This is a significantly lower proportion of eligible funding than the electric NEEA efforts have experienced over the years. Despite this funding relationship, Avista believes that the benefits to Avista customers will exceed Avista funding requirements. It is hoped that a combination of early successes and the opportunity to engage regulators in discussions of cost-effectiveness and cost recovery mechanisms will lead to higher levels of participation by eligible funders. Though this may take some time, the Company believes this to be an important opportunity to create a long-term means of addressing regional natural gas market transformation.

The NEEA funding requirements are incorporated within the budget but are considered to be supplementary expenditures outside of the scope of the current year's local portfolio. The NEEA portfolio has not been incorporated within either the acquisition projection or the cost-effectiveness of the 2015 local portfolio developed within this Business Plan.



## V. Analytical Review of Expected 2015 Operations

### Defining the Appropriate Cost-Effectiveness Metric

The planning effort is intended to optimize portfolio performance against the cost-effectiveness metric appropriate to each portfolio. Optimization is defined as maximizing the residual benefits (benefits less costs).

The planning effort has optimized the Washington electric portfolio for net TRC performance. The Washington natural gas portfolio, per guidance provided by the UTC in UG-121207 (“Policy Statement on the Evaluation of the Cost-Effectiveness of Natural Gas Conservation Programs”) and those related discussions, has been optimized for gross UCT performance.

The Company has committed to managing the Idaho DSM portfolio to “... have the goal of cost-effectiveness from the total resource, utility, and participant perspectives” (Memorandum of Understanding for Prudency Determination of DSM Expenditures, December 2009).

There are significant differences in the approach to the planning process when optimizing against the TRC versus the UCT. The table below illustrates the costs and benefits relevant to each of the two tests.

Table 2: TRC and UCT cost-effectiveness test comparison

	<u>TRC test</u>	<u>UCT test</u>
Benefits		
Avoided cost of energy	Included	Included
Quantifiable non-energy benefits	Included	Not included
Costs		
Utility incentive cost	Not included	Included
Utility non-incentive cost	Included	Included
Customer incremental cost	Included	Not included

A brief inspection of this table indicates that:

1. The UCT test will be easier to pass than the TRC test anytime that the customer incremental cost, plus the quantifiable non-energy benefits, exceed the utility incentive cost.

Since incentives are projected to be only 41% of customer incremental cost within the overall portfolio, and non-energy benefits are small relative to the avoided cost of energy, the TRC test is a significantly more difficult barrier. Exceptions occur when customer costs are low or inapplicable (e.g. appliance recycling programs) or when measures are fully or nearly fully incentivized (low income programs, the multifamily market transformation program).

In contrast, the focus of the TRC test is based on the cost-effectiveness incorporating all those costs that the customer pays directly (cost premiums for efficiency equipment) and indirectly (the net utility cost eventually paid through their utility bill). In 2015 84% of the TRC costs are expected to be paid directly by the customer in the form of the incremental cost of efficiency equipment. Thus optimizing the portfolio for TRC performance requires considerable focus upon those costs borne by customers.

2. A particular measure will pass the UCT test as long as the utility cost is less than the avoided cost of energy. Thus the utility is considerably more in control of the cost-effectiveness outcome in comparison to the TRC test driven mainly by the customers own incremental measure cost. As long as (a) the incentive does not exceed the avoided cost of energy and (b) the non-incentive utility cost is not greater than the difference between the avoided cost of energy and the incentive, then the measure will be UCT cost-effective

As a consequence of this relationship Avista reduced the per therm incentives for the Washington natural gas DSM portfolio by approximately 1/3<sup>rd</sup> in August, 2013. This was in reaction to the revisions in the natural gas avoided cost forecast that brought this present value nearly down to and in some cases below the incentive that was previously granted.

Since most of the non-incentive utility costs are not considered to be incremental at the measure level, for this planning process the general rule has been that any measure that saves natural gas is a favorable addition to the portfolio. Since the 2013 Washington natural gas DSM portfolio failed to pass the gross UCT test (the benefit-to-cost ratio was 0.82) the potential for another reduction in natural gas incentives was considered a possible recommendation from the 2015 planning effort. However the projected 2015 Washington natural gas portfolio gross UCT is 1.16, indicating that such an action is probably unnecessary to achieve cost-effectiveness for this metric.

Since it is the Company's intent to maximize the residual benefit (total benefits less total costs) any measure or program which favorably contributes to the cost-effectiveness of the overall portfolio is generally offered. This leads to a portfolio with larger acquisition and greater value to the customer base, as opposed to delivering a smaller and less valuable portfolio that may have a higher benefit-to-cost ratio.

### [Avista-Specific Methodologies and Analytical Practices](#)

Over time Avista has evolved approaches to calculating the various metrics applied within the planning effort to the needs of our portfolio and regulation. Care has been taken to ensure that these approaches are consistent with the intent of the Northwest Power Planning Council methodologies for the analysis of DSM to the extent possible and useful. From a planning perspective there are a number of Avista-specific issues that must be incorporated into the planning and management of the DSM portfolio. The basic tenets of Avista's approach are outlined within this portion of the document and a more detailed discussion of these topics is contained within Appendix B.

Avista completes an Annual DSM Report in the spring of each year based upon a retrospective review of actual results from the prior year. This process includes the calculation of each of the four basic standard practice tests (those metrics are summarized within Appendix B). For planning purposes the focus is upon the TRC and UCT test given that they are the basis for optimizing the portfolio. Therefore the explanation of Avista's methodologies focuses upon those two tests. Historically we have found that, absent significant mid-year changes in the portfolio, the planning estimate matches reasonably closely to the actual results.

Avista's DSM portfolios are built from the bottom up, starting with the identification of prospective efficiency measures based upon the previous CPA and augmented with other specific opportunities as they become known. Since CPA's are only performed every two years, and since the inputs to the CPA are locked many months in advance of the filing of the IRP itself, there is considerable time for movement in these inputs and the development of other opportunities. However, measures that are subject to RTF endorsed UES are locked in place for the biennium and the related measure characteristics (particularly the incremental cost and measure life) are locked to provide symmetry with the energy savings value. Nevertheless Avista does not desire to offer measures which we believe are harmful to our customers in practice, even if endorsed RTF values make the option appear to be worthwhile.

The calculation of portfolio cost-effectiveness excludes costs that are unrelated to the local DSM portfolio in that particular year. Those excluded costs, termed "supplemental" costs in Avista's calculations, include:

- The funding associated with regional programs (NEEA)
- Funding for Idaho research and development projects obtained through Schedule 91 but unrelated to the 2015 local DSM portfolio.
- The costs associated with the evaluation of distribution efficiency improvements. (The energy saving value of these projects is not within the scope of the local DSM portfolio).
- A stream of contractually obligated incentive payments made by Avista under a ten-year contract. The energy savings value and the present value of the incentive payments were fully incorporated into previous time periods.

An assessment of a measures contribution to portfolio TRC and UCT cost-effectiveness is based upon the incremental costs and benefits only. All benefits, customer incremental costs and (for the UCT test) utility incentives are considered to be incremental at the measure level. To the extent that non-incentive costs are incremental at this level of aggregation they are also included in the analysis (e.g. per unit or per kWh payments associated with third party delivered programs). The resulting treatment of incremental costs and benefits create what Avista terms a "sub-TRC" and "sub-UCT" analysis. The "sub" nomenclature indicates that the analysis is based upon incremental assignable costs only and does not include a full allocation of non-incremental utility costs.

Individual measures are aggregated into programs composed of similar measures. At the program level non-incentive portfolio costs are allocated based upon direct assignment to the extent possible and when that is not possible, is based upon a programs share of portfolio energy acquisition as measured using a British Thermal Units (BTU) measurement. The result is a family of program-level TRC and UCT cost-effectiveness analyses that incorporate all utility costs. The approach of ensuring that all costs are allocated at the program level is based upon Advisory Group feedback from previous Avista business planning efforts asserting that programs are generally sufficiently large that the addition or deletion should lead to an adjustment in the portfolio infrastructure cost.

Though the cost of energy efficiency is generally incurred at the time of purchase, the benefits accrue over a long period of time. As such it is necessary to calculate a present value to establish a means for a comparison of costs and benefits. Avista utilizes the Company's 6.86% weighted average cost of capital as the discount rate in the calculation of these present values.

It is generally the objective of Avista's programs to influence the customer decision regarding the purchase of an efficiency measure towards the most cost-effective alternative. However it is realized that some customers participating in utility programs would have adopted the measure even in the absence of the program. The Company has worked with Cadmus in recent years to estimate the degree of influence that utility programs have upon customer decisions using a scored survey of program participants. The results have been aggregated into program categories to determine the percentage of program participant benefits and costs which were the result of the utility intervention. This is termed a "net-to-gross" ratio. Net-to-gross ratios are not applied to measures utilizing an RTF adjusted market baseline methodology, since the adjustments to the baseline and the net-to-gross ratio are duplicative.

When the net-to-gross ratio or an adjusted market baseline measurement of savings is applied to adjust program benefits and customer-specific program costs (excluding fixed non-incentive utility cost) a net TRC or net UCT calculation is obtained. Consistent with Council methodologies and Advisory Group commentary, the TRC test used to optimize the electric portfolios is performed on a net basis. The UCT test used to optimize the Washington natural gas program is not modified by the net-to-gross ratio and is termed a gross UCT test.

The calculation of the TRC test benefits include, to be consistent with Northwest Power Planning Council methodologies, an assessment of non-energy impacts (both benefits and costs) accruing to the customer. These impacts most frequently include maintenance cost, water and sewer savings. In the case of low income programs this also includes the value of providing base case end-use equipment as part of a fully funded measure and the value of health and safety funding (on a dollar-for-dollar basis).

For purposes of calculating TRC cost-effectiveness any funding obtained from outside of Avista's customer population (generally through tax credits or state or federal administered programs) are not considered to be TRC costs. These are regarded as imported funds and, from the perspective of Avista's customer population appropriate to the TRC test, are not costs borne by our customers. Co-funding of efficiency measures from state and federal programs for low income programs applicable to a home that

is also being treated with Avista funding is not incorporated within the program cost. This is consistent with permitting tax credits to offset customer incremental cost as described within the California Standard Practice Manual description of the TRC test.

A more in-depth explanation of these analytical practices is contained in Appendix B.

### Analytical Review of Measures and Programs

The annual business planning process begins with a “blank slate” approach to maximizing the value of the DSM portfolio to customers. The process ends when the portfolio meets, or comes as close as possible to meeting, the desired objectives. Within this section is a summary of the composition and performance of the planned 2015 portfolio.

Approximately 630 different measures were reviewed, not including the low income and site-specific programs, which are composed of a large number of unique measures and measure applications. There are varying degrees of redundancy in these measures based upon their definition and eligibility criteria. After an initial screen for duplicity, the remaining measures were characterized based upon the energy savings, non-energy benefits, measure life, customer incremental cost, and incremental non-incentive utility cost. The most recent Cadmus study estimate of the net-to-gross ratios were then applied to these measure categories.

A calculation of the applicable measure incentive, net TRC benefit-to-cost ratio (for electric measures) and the gross UCT benefit-to-cost ratio (for natural gas programs) was completed. For prescriptive measures a calculation of the incentive per Schedule 90 and 190 is completed and used in the development of the incentive included in a larger package of customer-facing program elements.

Decisions when incorporating a measure within a program being offered to customers were primarily, but not exclusively made upon the contribution of each individual measure to the portfolio cost-effectiveness. In the case of the natural gas portfolio, any measure that doesn't possess burdensome incremental non-incentive utility costs would favorably impact the gross sub-UCT portfolio value and was therefore strongly considered for inclusion. For electric measures, the net sub-TRC cost-effectiveness is dependent primarily upon the relationship between the avoided cost of energy and non-energy benefits to the customer incremental cost. Factors other than cost-effectiveness that were considered in the measure status include consistency with other measures, the incentive relative to both the incremental and total customer cost, the marketability and expected customer satisfaction of the measure and the element of uncertainty surrounding all of the inputs to the planning process.

For purposes of reviewing the contributions of these programs, the portfolio has been categorized as follows:

- Residential prescriptive programs
- The Opower program
- Low income programs

- Nonresidential prescriptive programs
- The Site-Specific program (including the Cascade Strategic Energy Management program)

It should be noted that the program-level cost-effectiveness analysis presented in this section includes an allocation of relatively fixed infrastructure costs. Several programs are, in this view, cost-ineffective but are composed of generally incrementally cost-effective individual measures that may not be sufficiently cost-effective to overcome the fixed infrastructure cost burden allocated at the program level.

A summary of the acquisition by program and by jurisdiction (including a separate calculation of EIA acquisition) is contained in the table below. The levels of acquisition should be used as a general guide to the weight which each program carries in determining the overall portfolio cost-effectiveness. The table below includes two programs (residential appliances and non-residential standby generation engine block heaters) that were reviewed, but didn't have measures suitable for offering on a prescriptive basis.

**Table 3: Electric and natural gas acquisition by jurisdiction and EIA eligible acquisition**

<b>Summary of Energy Acquisition by Program</b>					
(in first-year kWh's and first-year therms)					
	Washington electric portfolio	Idaho electric portfolio	Total electric acquisition	Washington I-937 portfolio	Washington natural gas portfolio
<b><u>Residential Prescriptive Programs</u></b>					
Appliance recycling	408,800	175,200	584,000	408,800	-
Appliances	-	-	-	-	-
Energy Star Homes	64,795	44,669	109,464	64,795	470
Fuel Efficiency	5,052,527	2,319,423	7,371,949	-	-
HVAC	772,827	413,705	1,186,532	772,827	198,720
Lighting	6,283,196	3,109,108	9,392,304	6,283,196	-
Shell	749,996	418,419	1,168,415	749,996	80,576
Water heat	179,890	114,736	294,626	179,890	11,884
<b><u>Residential Behavioral Programs</u></b>					
Opower	738,487	501,099	1,239,586	738,487	-
<b><u>Low-Income Programs</u></b>					
Low Income	2,791,949	864,695	3,656,644	412,361	29,298
<b><u>Non-Residential Prescriptive Programs</u></b>					
EnergySmart Grocer	1,771,017	759,007	2,530,025	1,771,017	-
Food Service Equipment	343,415	147,178	490,593	343,415	26,980
Green Motors	74,011	31,719	105,730	74,011	-
Motor controls HVAC	317,099	135,900	452,999	317,099	-
HVAC	-	-	-	-	29,157
Non-residential appliances	1,159	497	1,656	1,159	163
Non-residential Prescriptive lighting	6,745,383	2,673,115	9,418,498	6,745,383	-
Power Management for Personal Computers	296	127	423	296	-
Prescriptive Shell	15,993	6,854	22,848	15,993	8,177
Standby Generator Engine Block Heater	-	-	-	-	-
AirGuardian	214,715	92,021	306,736	214,715	-
Fleet Heat	1,050,000	450,000	1,500,000	1,050,000	-
<b><u>Non-Residential Site-Specific Programs</u></b>					
Non-residential Site-specific	10,388,230	7,956,277	18,344,507	10,211,613	216,586
Cascade	1,185,000	-	1,185,000	1,185,000	-
<b>Total residential</b>	<b>14,250,518</b>	<b>7,096,358</b>	<b>21,346,876</b>	<b>9,197,991</b>	<b>291,649</b>
<b>Total low income</b>	<b>2,791,949</b>	<b>864,695</b>	<b>3,656,644</b>	<b>412,361</b>	<b>29,298</b>
<b>Total non-residential</b>	<b>22,106,320</b>	<b>12,252,695</b>	<b>34,359,016</b>	<b>21,929,703</b>	<b>281,063</b>
<b>Total acquisition</b>	<b>39,148,787</b>	<b>20,213,748</b>	<b>59,362,535</b>	<b>31,540,056</b>	<b>602,010</b>

These acquisitions represent the fuel impact (the electric impact of electric programs and the natural gas impact of natural gas programs) of each program. This establishes the acquisition that each portfolio will claim, with some modification for EIA purposes as indicated in a separate column of the table above. Cross-fuel impacts, such as the natural gas usage resulting from a fuel efficiency (electric to natural gas conversion) project are not incorporated within the claimed acquisition, but are fully incorporated into the cost-effectiveness calculations. Programs that are designated as dual-fuel (those that deliver significant electric and natural gas savings through the same mechanism, such as a shell measure generating natural gas space heating and electric space cooling savings) can simultaneously deliver claimable electric and natural gas acquisition.

### Residential prescriptive portfolio

Since the residential portfolio is composed of large numbers of individual customers, the approach is almost exclusively prescriptive in nature. Programs are offered with defined eligibility criteria and customers meeting those criteria receive a pre-determined rebate. Customers are not required to notify the Company prior to their purchase or installation.

The planning process evaluated measures that were divided into eight programs of similar measures:

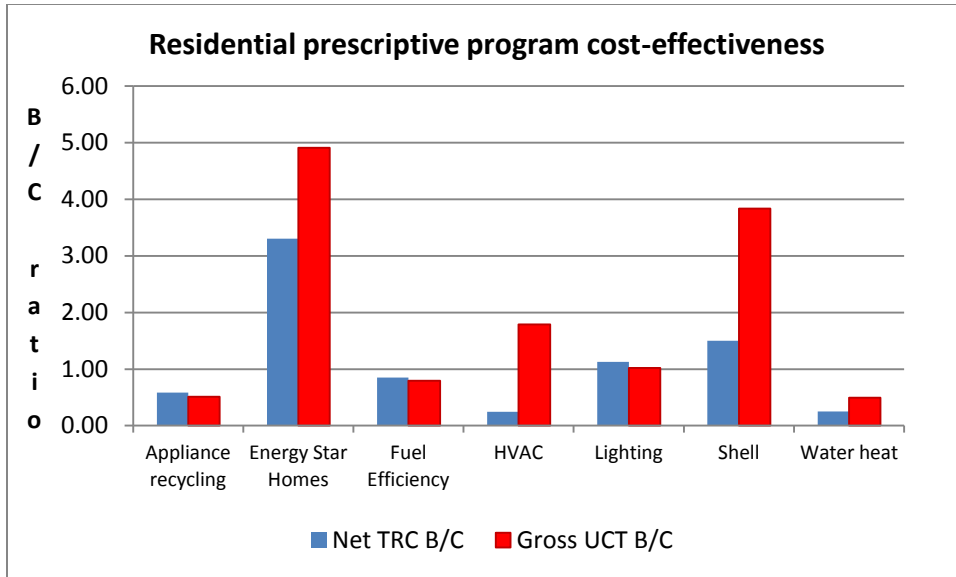
- Appliance recycling
- Appliances
- Energy Star homes
- Fuel-efficiency
- Heating, ventilation and air conditioning (HVAC)
- Lighting
- Shell measures
- Water heating measures

Of these eight evaluated programs, only the appliance program was determined not to have any measures meeting the required criteria for being offered through utility programs. Generally the appliance measures evaluated were of poor cost-effectiveness, had unfavorable net-to-gross ratios, possessed minimal energy saving and/or led to incentives that were a very small proportion of the appliance cost. As such, these measures failed to deliver reasonable cost-effectiveness value and detracted from the overall DSM portfolio.

The program-by-program cost-effectiveness of the portfolio is graphically represented in the figure below:



Figure 1: Prescriptive residential program net TRC and gross UCT benefit-to-cost ratios



It is important to note that, since those non-incentive utility cost that cannot be directly assigned to measures or programs are allocated on the basis of the BTU claims of those programs, the fuel-efficiency program attracts a considerable quantity of these costs. It is this burden that has reduced the cost-effectiveness of the program below 1.00. In contrast, there is relatively little expected throughput or energy savings from the ENERGY STAR Homes program and it thus bears little non-incentive utility cost allocation. These non-incentive utility cost allocations also lead some programs to fall short of being cost-effective on a gross UCT basis, though the individual measures within that program are cost-effective absent these allocations.

The Opower program

The Opower program generates behavioral savings from a treatment group as measured against a randomly selected control group. Lacking any documentation to the contrary, it is assumed that there are no non-energy impacts or incremental customer cost associated with these savings. The program costs were based upon the most recent budget expectations and all assigned and allocated non-incentive utility cost.

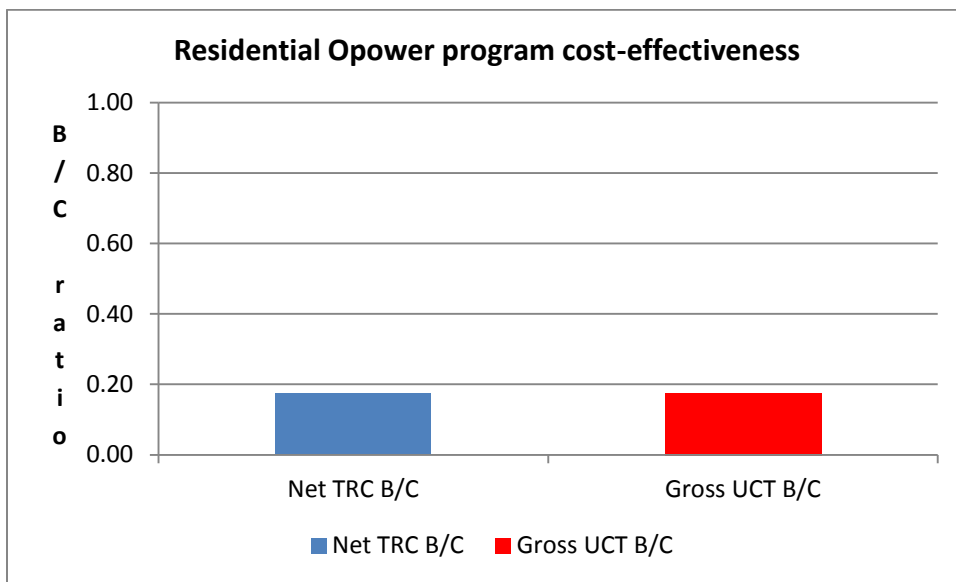
Avista is applying a three year measure life to the program based upon the available persistence studies measuring the degradation of the behavioral energy savings upon program termination. These studies indicate that the savings will decline at a rate of approximately 19% to 20% per year. Under these circumstances, one-half of the savings will fall away within three years.

Since a three year measure life is assumed, the present value of the first three years of the avoided cost stream is valued in the year that the savings are acquired. Savings recognized in previous years are not eligible to be claimed for the remainder of their three year measure life. This is consistent with the

methodology used to modify the Company's CPA to develop an EIA target (adding 6,900 MWh) that permits Opower acquisition to be eligible for the 2014/2015 biennium.

Avista launched the Opower program in mid-2013 under a three year contract. The term of the contract is, coincidentally, the same as the measure life of the program. Thus, any savings claimed through the Opower program will not be reclaimed within the current contracted life of the program. The savings claimed in 2015 will be the measured savings from the program, less than what is expected to be claimed in 2014 and the actual 2013 claim. Although projections indicate that the Opower program will save 102% of the savings expected over the three year program life by the close of 2015, only 6% of those savings will be claimable in program year 2015 due to the exclusion of previously recognized acquisition. Consequently, the 2015 program cost-effectiveness performance is sub-standard and not necessarily representative of the cost-effectiveness over the full program life.

Figure 2: Opower program net TRC and gross UCT benefit-to-cost ratios



Low income programs

Avista's low income programs are offered in a cooperative effort with Community Action Partner (CAP) agencies under annual contract to Avista. The funding contracts allow for considerable flexibility for the CAP to deliver to each individual low income client a mix of measures customized to that particular home. For purposes of establishing a projection of program performance for 2015, Avista has defined 14 electric measures available to the Idaho CAP and 26 electric and natural gas measures available to Washington CAP's. Additionally, the CAP is permitted to expend up to 15% of their funding on health and safety measures on homes receiving Avista-funded treatment. CAP agencies may charge Avista up to 15% of the total installed cost of the measures for reimbursement of administrative costs.

Avista's projected funding for each of the measure installations is limited to the present value of the energy savings, with exceptions provided for a few selected measures. Consequently, the CAP may encounter a measure which they intend to pursue that is not fully funded through Avista's allotted incentive for that measure. Under these circumstances, the CAP can either use Avista health and safety funds or use non-Avista funding to complete the funding of the measure. Avista does not include the application of non-Avista co-funding for the installation of energy measures as a cost for purposes of calculating the TRC test. This funding is considered to be an importation of funds from outside Avista's customer base and, since the perspective of the TRC test is that of the customers of a specific utility, these imported funds do not burden the TRC test.

Avista defines two major non-energy benefits uniquely applicable to the low income program. These are:

1. End-use non-energy benefit - CAP's fund the entire cost of the installation of the measure in a customer home, not just the incremental cost of the higher efficiency value. To maintain consistency with how the utility is invoiced and with programmatic budgets, the Company includes the full invoiced cost within the TRC test. However, the energy efficiency value of the measure corresponds only to the incremental cost of the efficiency measure. Thus, Avista values the cost associated with the baseline end-use as a non-energy benefit being provided to the customer.
2. Health and safety non-energy benefit - The 15% health and safety allowance permitted under the Company's funding contracts with the CAP is assumed to create, on a dollar-for-dollar basis, a quantifiable non-energy benefit. It is assumed that the CAP would only make these investments in an individually reviewed home if the benefits were equal, or in excess of, the cost. Therefore, Avista recognizes a non-energy benefit for health and safety expenses that is equal to the amount expended.

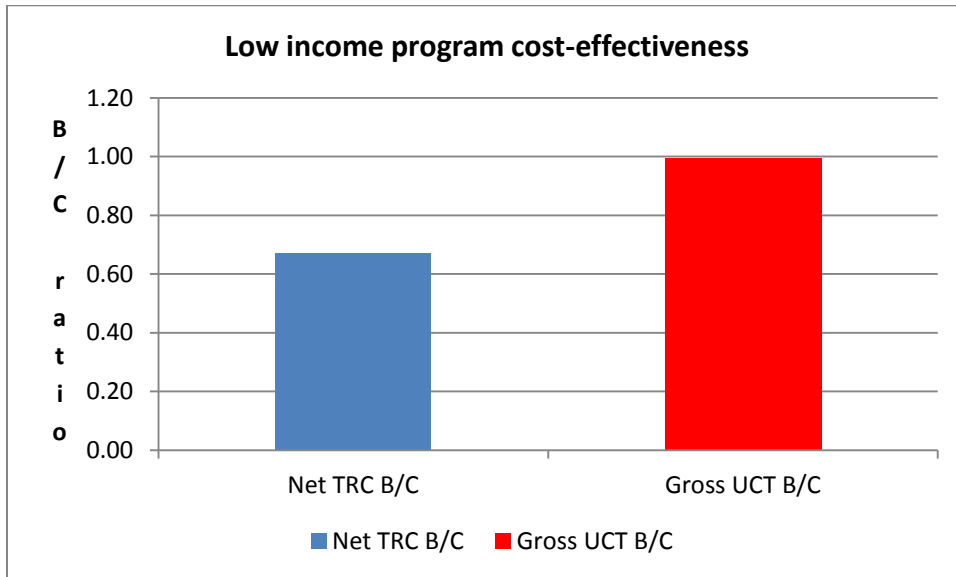
Other non-energy benefits associated with individual measures are quantified and included within the low income portfolio analysis in a similar manner to any other measure within the Avista DSM portfolio.

The UCT is calculated based upon the authorized expenditure of Avista funds, whereas the TRC cost is based upon the cost of the installation without regard to how that cost is paid. Since the authorized expenditures for a measure are potentially less than the full cost, due to the cap on funding available for most measures at the value of the energy savings, the portfolio UCT costs are lower than the TRC cost. Both the UCT and TRC costs include all assigned and allocated non-incentive utility costs.

Since there are often multiple measures installed at the same time, and these measure packages frequently consist of similar measures, it is statistically difficult to separately the individual measure savings. As a result, Avista has developed adjusted engineering estimates of UES for this program that align with actual impact evaluations for participating homes. While there is confidence that the homes

achieved a certain level of savings; it is difficult to determine an individual measures contribution to the energy savings.

Figure 3: Low income program net TRC and gross UCT benefit-to-cost ratios



Nonresidential prescriptive programs

Nonresidential prescriptive programs are similar to residential prescriptive programs in that they do not require a pre-installation contract and offer a fixed incentive amount for eligible measures. Measures offered through prescriptive programs are evaluated based upon the typical application of that measure by program participants. Measures that are eligible through the prescriptive program are not eligible for the otherwise all-inclusive site-specific program. Prescriptive measures are generally limited to those that are low cost, offer relatively homogenous performance across the spectrum of likely applications and would not significantly benefit from a more customized approach.

The 2015 portfolio is expected to consist of eleven prescriptive programs covering a total of 192 measures, as listed below:

- EnergySmart Grocer
- Food Service Equipment
- Green Motors
- Motor Control HVAC
- Heating, ventilation and air conditioning (HVAC)
- Non-residential appliances
- Non-residential lighting
- Power Management for Personal Computers
- Prescriptive Shell

- AirGuardian
- Fleet Heat

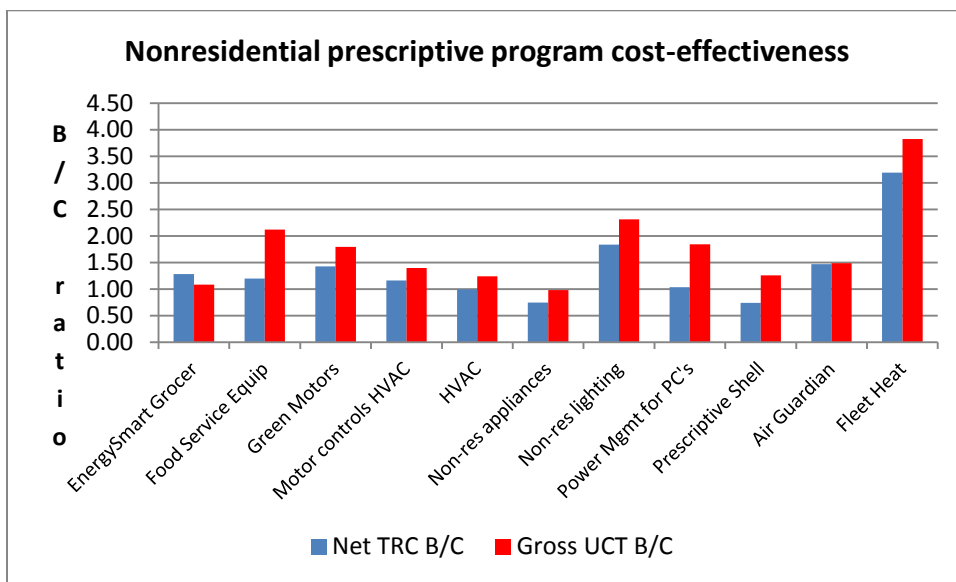
Two of the programs (EnergySmart Grocer and Green Motors) are offered to customers through third-party implementation staff (Portland Energy Conservation, Inc. (PECI) and Green Motors Practices Group respectively) while the other nine programs are fielded by Avista DSM staff.

PECI also offers customized approaches to facilities requiring contracts and non-prescriptive incentive calculations in conjunction with the Avista-approved prescriptive offerings. These portions of Peci's offerings are included in the site-specific program and are consistent with the requirements of that program.

The AirGuardian and Fleet Heat programs are both new to Avista's non-residential prescriptive portfolio, though the vehicle heating control measure was the subject of a previous Avista pilot program.

The analytical treatment of these programs is similar to other prescriptive programs in terms of the measure characterization and the calculation of all elements of TRC and UCT cost-effectiveness, as well as incentive level guidance. Quantifiable non-energy benefits are included in the TRC calculation including, but not limited to, reductions in maintenance, water, and sewer and non-utility energy costs. All assigned and allocated non-incentive utility costs have been incorporated into the cost-effectiveness calculation.

Figure 4: Nonresidential prescriptive program net TRC and gross UCT benefit-to-cost ratios



### Site-specific program

Avista's site-specific program has historically been one of the largest and frequently one of the more cost-effective programs. Any measure with documentable and verifiable energy savings and a life of ten years or more and that is not otherwise covered by a prescriptive program is eligible for the site-specific program. The all-encompassing nature of the program has led to the participation of a number of projects that would not otherwise have been incorporated within the portfolio.

For purposes of projecting 2015 program performance, the most recent fully evaluated year of historical achievements (from the 2013 DSM Annual Report) was used as the starting point. During 2013, a total of 325 site-specific projects were completed ranging from electric projects as small as 65 kWh's and natural gas projects as small as 21 therms up to projects as large as 1.5 million kWh's and 36,000 therms. For a program with the range of measure characteristics of this magnitude, the use of a recent full year of actual participation provides the best possible guidance.

From this starting point, adaptations are considered to reflect revisions expected in the program since the foundational data period is established. The two changes that are most likely to alter the nature of the historic 2013 site-specific program in comparison to 2015 expectations are (1) the change in the fuel-efficiency incentives permissible within the Schedule 90 tariff and (2) updates to the PECCI custom projects expected for 2015.

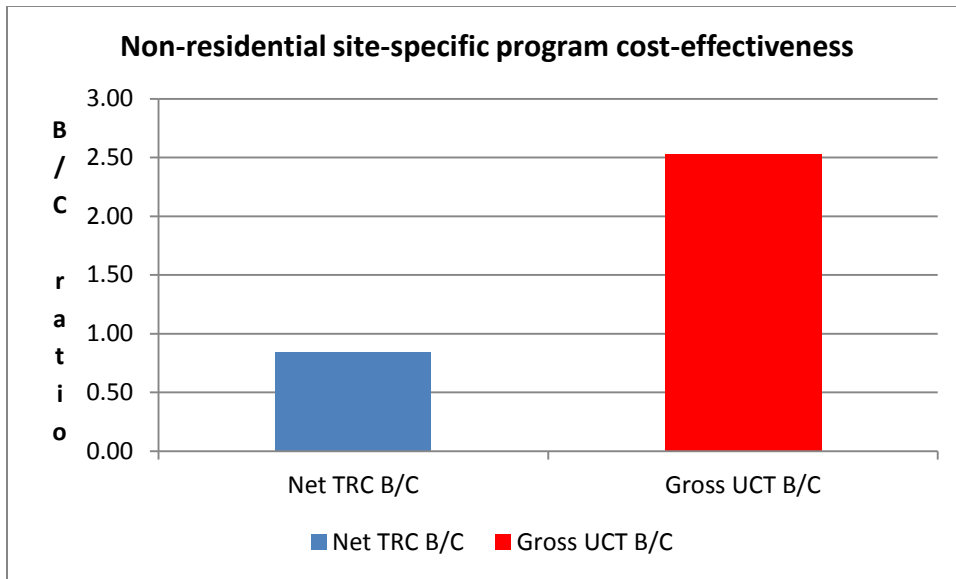
In recent years there have been few site-specific fuel efficiency projects within the program (3 in 2013). These are primarily multifamily projects completed through the Company's multifamily fuel-efficiency program launched in 2008 and continuing into 2015. Though the increased incentive level may bring more projects forth in the future, at this point any adjustment would be so speculative that no adjustment was made.

Updated PECCI custom project expectations were manually added to the site-specific program to reflect what is expected to occur through the primarily, but not exclusively prescriptive EnergySmart Grocer program. These were the only projects to be manually added to the historical 2013 site-specific performance record.

For purposes of characterizing the program cost-effectiveness, the estimated program savings from the 2013 DSM Annual Report were applied. Though these are unverified savings, the realization rate in the recent past has been very close to 100% and therefore any adjustment would have been minimal. The measure life, customer incremental cost and non-energy impacts applied to the 2013 DSM Annual Report were carried over to the 2015 Business Plan without modification. This information is gathered by Avista's DSM staff on a project-specific basis and, though unverified by other sources, remains the best possible data for projecting future program performance.

All assigned and allocated non-incentive utility costs were incorporated into the calculation of the program cost-effectiveness, to include the per kWh payments to PECCI for custom projects coming through their infrastructure.

Figure 5: Site-Specific program net TRC and gross UCT benefit-to-cost ratios



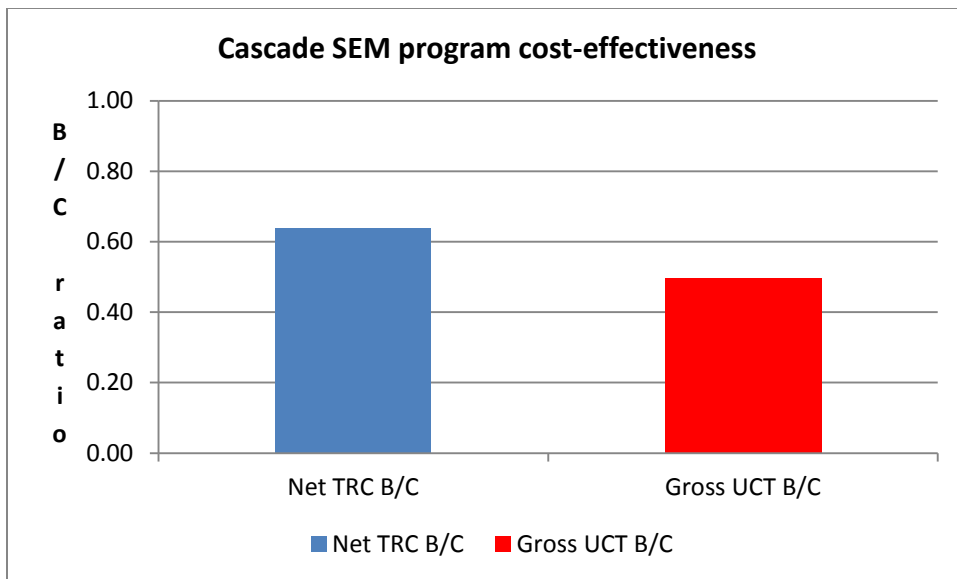
Cascade Strategic Energy Management (SEM) program

In 2014 Avista entered into an agreement with Cascade Energy to work with two interested Washington customers on improving the control of the energy usage associated with industrial processes. These measures would otherwise be ineligible for treatment through the site-specific program because the measure life is much shorter than the ten year period required for site-specific program eligibility. Consequently, the site-specific incentives, designed for much longer measure lives, would significantly exceed the avoided cost of the energy savings.

Cascade Energy approaches these selected customers with proposals for metering, diagnosing, correcting and ensuring the persistence of approaches to reducing the high levels of energy waste that frequently occurs in industrial processes. For purposes of characterizing the programs expected 2015 performance, a specific review of the two projects consistent with the customer’s facilities and their contract with Cascade Energy was completed. This assessment included the cost that the customer would pay for the services, the cost that the customer would pay and Avista would reimburse (considered to be an incentive), the cost of correcting and maintaining the system improvements (considered to be the customer incremental cost) and the traditional incentive that Avista would pay for the energy savings and the retention of those savings. The incentives applied to this project under the contract are significantly less, on a per kWh basis, than those that would be granted to site-specific or prescriptive projects with measure greater persistence.

Though the two projects themselves were found to be cost-effective, the assigned and allocated non-incentive utility costs brought these values down significantly.

Figure 6: Cascade SEM program net TRC and gross UCT benefit-to-cost ratios



### Portfolio Cost-Effectiveness Projections and Related Metrics

The individual measures and the programs that they are aggregated into create three jurisdictional portfolios that will be reported in the 2015 DSM Annual Report based upon actual performance. Those three portfolios are the Washington electric portfolio, the Idaho electric portfolio and the Washington natural gas portfolio. As previously discussed, the two electric portfolios are optimized based upon the net TRC metric and the Washington natural gas portfolio is optimized based upon the gross UCT metric, though both metrics are calculated for all three portfolios.

The Company presented to the DSM Advisory Group a portfolio that was marginally short of full TRC cost-effectiveness for the Washington electric portfolio (a benefit-to-cost ratio of 0.99) on October 22, 2014. Based upon feedback from the Advisory Group recommending that the Company take steps to improve the expected cost-effectiveness, the Company revisited the portfolio and eliminated the LED measures contained within the Simple Steps, Smart Savings program. Based upon locked RTF assumptions for these measures, they are currently cost-ineffective.

As provided earlier in this plan, the cost-effectiveness of each of these portfolios is represented within the illustration and table below. At this point it is expected that all three portfolios will be cost-effective relative to the metric that the portfolio was designed to achieve.



Figure 7: Jurisdictional portfolio TRC and UCT cost-effectiveness benefit-to-cost ratios

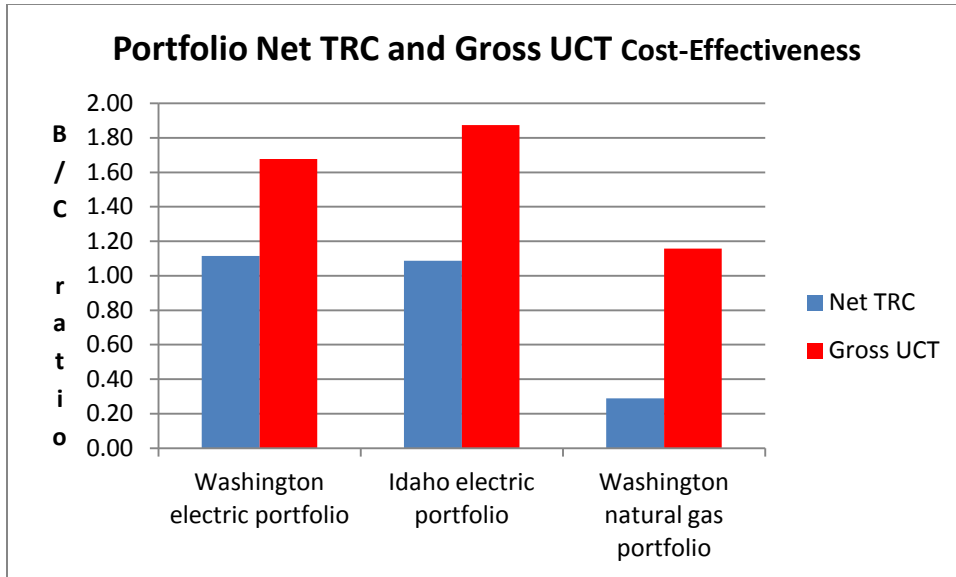


Table 4: Jurisdictional portfolio TRC and UCT cost-effectiveness benefit-to-cost ratios

	Cost-effectiveness summary by portfolio and jurisdiction							
	Gross full UCT B/C ratio				Net full net TRC B/C ratios			
	WA E	ID E	WA G	Total	WA E	ID E	WA G	Total
Regular income portfolio	1.82	2.05	1.19	1.79	1.19	1.14	0.28	1.03
Low income portfolio	1.06	0.87	0.83	1.00	0.81	0.71	0.31	0.67
Total portfolio	1.68	1.87	1.16	1.66	1.12	1.09	0.29	0.96

### Resource Acquisition Projections and Targets

A key element of the Company’s objective for the DSM portfolio is to cost-effectively achieve the DSM acquisition targets applicable to each portfolio. These acquisition targets are; (1) the 2014/2015 Washington electric EIA target, (2) the Idaho electric IRP acquisition target for 2015 and (3) the Washington natural gas IRP acquisition target for 2015.

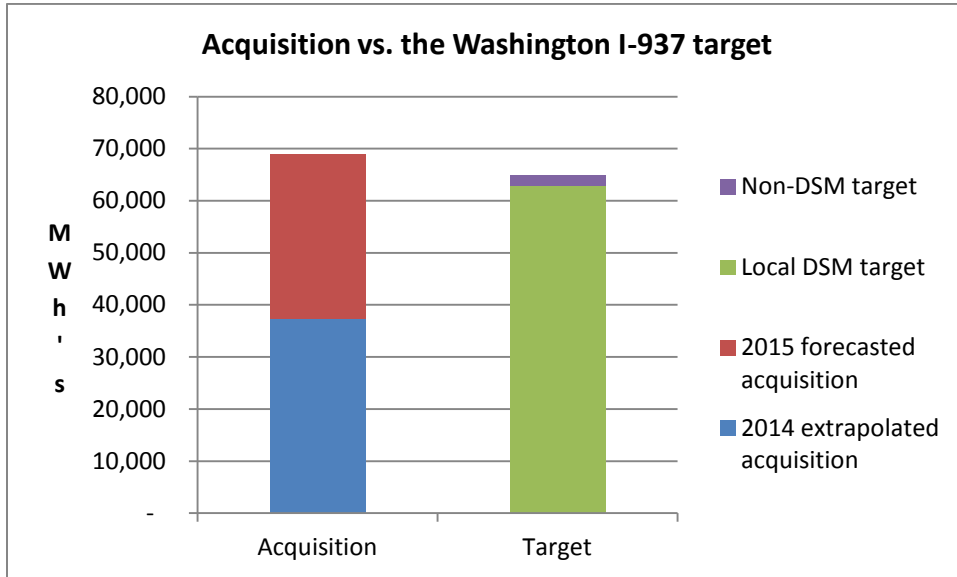
#### Washington EIA acquisition target

The 2014/2015 EIA conservation acquisition requirement encompasses local DSM efforts (excluding fuel efficiency), distribution efficiency and selected aspects of generation efficiency. The established target includes the expectation of 62,907 MWh of local DSM and a total conservation target of 64,956 MWh for the biennium. The local DSM target includes the addition of 6,900 MWh to allow for the full inclusion of behavioral programs as an eligible measure.

Based upon a program-specific extrapolation of 2014 year-to-date results, it is anticipated that 37,297 MWh end-of-year acquisition will be achieved (59% of the full biennial target). The 2015 DSM

Business Plan projects EIA eligible acquisition to yield an additional 33,025 MWh (51% of the biennial target). In total, the Company expects verified acquisition to exceed the full EIA conservation target by 5,366 MWh, or 8% of the target. The local DSM acquisition is expected to exceed the local DSM portion of the target by 9%.

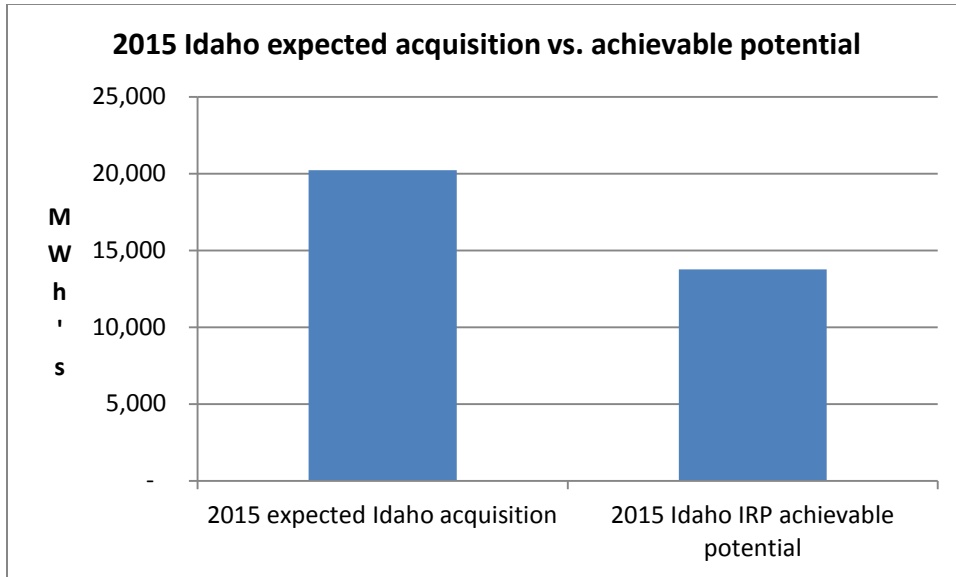
Figure 8: Expected portfolio electric acquisition in comparison to the Washington EIA target



Idaho IRP acquisition target

The 2013 electric IRP estimated an achievable potential of 1.57 aMW of acquisition (13,753 MWh) in Idaho during 2015. The 2015 planning process projects 20,214 MWh to be achieved (47% in excess of the IRP target) as illustrated below. The margin by which this target is expected to be exceeded by is significantly in excess of the degree of uncertainty in the planning projection.

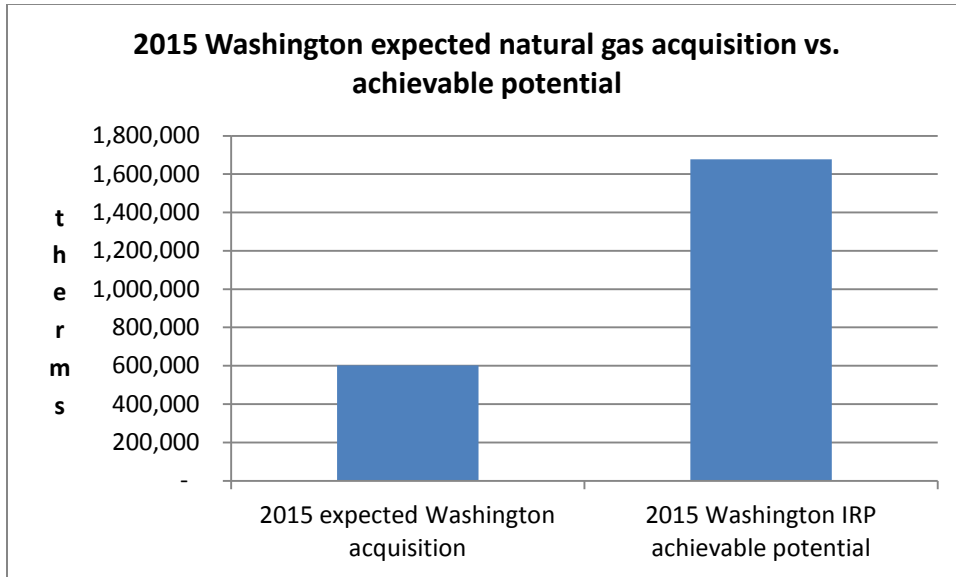
Figure 9: Expected portfolio electric acquisition in comparison to the Idaho IRP target



Washington natural gas acquisition target

The 2014 Avista Natural Gas IRP established an estimate of natural gas efficiency acquisition that was cost-effective relative to the UCT metric applied to this portfolio. The acquisition achievable by use of this metric is greater than that which would have been arrived at by use of the TRC metric. The 2015 estimated achievable and UCT cost-effective acquisition was estimated at 1,677,000 first-year therms. This is significantly higher than the 2015 acquisition anticipated based upon the business planning process (602,000 therms) and represents only 36% of the established IRP target. However, the 2015 acquisition is consistent with the 613,788 therms acquired by the Washington natural gas portfolio in 2013 and therefore seems to be a reasonable projection.

Figure 10: Expected portfolio natural gas acquisition in comparison to the Washington IRP target



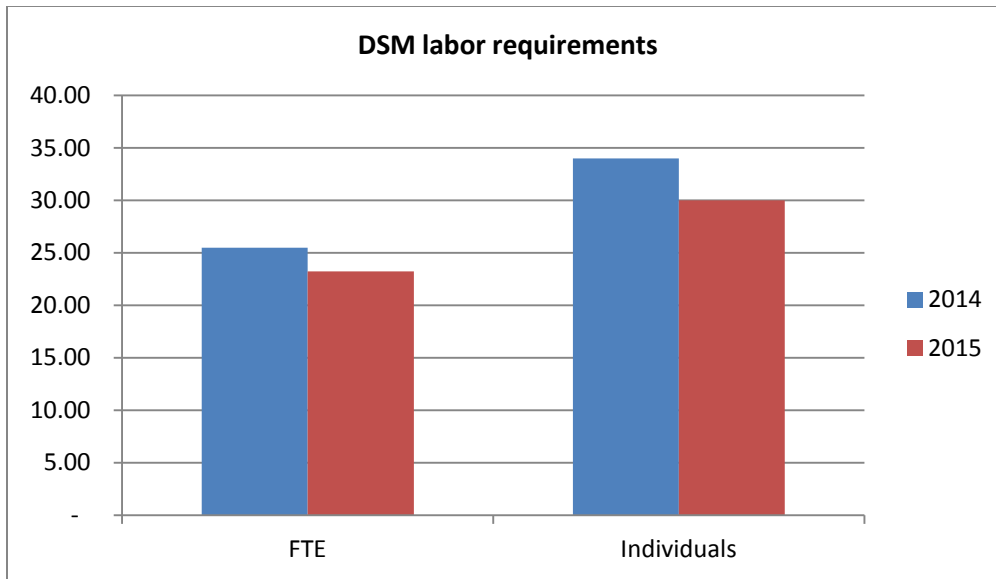
### DSM Labor Requirements

Labor expenditures account for about two-thirds (58%) of the Company’s non-incentive utility cost (excluding supplemental costs) used in determining portfolio cost-effectiveness. Projections of expected labor requirements by job classification are finalized by the DSM Senior Manager based upon input from throughout the organization. These projections are then applied to the average salary for each classification and updated labor overheads are applied. The expected labor overheads for 2015 have fallen rather significantly, from 101% to 72%, since the prior year.

Individual labor charges are directly assigned to the extent possible. These assignments may be to an individual program, or to a class of programs (e.g. residential programs). When labor is allocated to a class of programs, it is done on the basis of the BTU energy savings that the programs have accrued. Labor that has not been individually assigned is allocated across all programs within the portfolio in a manner that is proportionate to the BTU energy saving of the programs. Allocation of these costs by BTU savings allows the costs to align, to a significant degree, with program achievements and the programs ability to bear those costs.

The expectations in 2015 indicate that \$3.2 million of fully loaded labor funding will be required, a 5% reduction from the 2014 budget. This amount will fund 23.3 full-time equivalent (FTE) spread across 30 different individuals. A comparison of the 2014 and 2015 labor requirements is illustrated below:

Figure 11: Comparative 2015 and 2014 DSM labor requirements



**Overall DSM Budget Projections**

Based upon all of the preceding planning, a compilation of the total DSM budget is assembled at the completion of the planning process. The placement of the budget compilation at the close of the process is consistent with Avista’s commitment to achieve all cost-effective DSM and to maximize the value of the portfolio without budgetary constraints. It is assumed that prudently incurred expenditures will be fully recoverable through the DSM tariff rider and that revisions in the tariff rider surcharge will be timely so as to maintain a materially neutral tariff rider balance. Thus, the budget is a product of the planning process and not a planning objective.

The overall 2015 budget projection is summarized below. The table includes (separately) elements of the DSM budget that have been designated as “supplemental” to indicate that they are unrelated to the current year operations and excluded from the cost-effectiveness calculation.

**Table 5: Summary of the 2015 DSM budget**

	Washington electric portfolio	Idaho electric portfolio	Washington natural gas portfolio	Total	Supplemental in nature	Non-Supplemental budget
Total incentives	\$ 6,917,074	\$ 3,159,735	\$ 1,690,185	\$ 11,766,994	\$ -	\$ 11,766,994
Total labor	\$ 1,517,664	\$ 905,959	\$ 767,135	\$ 3,190,758	\$ -	\$ 3,190,758
Total non-labor / non-incentive	\$ 2,829,171	\$ 1,416,650	\$ 564,894	\$ 4,810,715	\$ 2,509,281	\$ 2,301,434
<b>Total budget</b>	<b>\$ 11,263,909</b>	<b>\$ 5,482,344</b>	<b>\$ 3,022,214</b>	<b>\$ 19,768,467</b>	<b>\$ 2,509,281</b>	<b>\$ 17,259,186</b>

The Company has been tracking the proportion of total utility expenditures returned to customers in the form of direct incentives as a metric to guide the Company towards improved administrative efficiencies and to reduce the divergence between net and gross TRC cost-effectiveness. The table below shows

these proportions by individual portfolio and for the three portfolios in aggregate. The proportion of funds expended for customer direct incentives has increased from the Company’s recent history due to the higher incentives now permitted for fuel efficiency projects as well as increased throughput expectations for other programs such as the residential shell program and the EnergySmart Grocer program.

Table 6: Proportion of funds returned to customer through direct incentives

	Washington electric portfolio	Idaho electric portfolio	Washington natural gas portfolio	Total
% of utility expenses returned to customers via incentives	61%	58%	56%	60%

The program-by-program detail of the expected incentive expenditures is provided in greater detail below. The incentives are highly correlated to program throughput and energy acquisition, though notably the incentive level per BTU for natural gas programs is significantly below that of electric programs. This is attributable to per BTU avoided cost differential and the need to reduce the per therm incentive levels in response to the lower natural gas avoided cost and the objective of optimizing the portfolio for gross UCT cost-effectiveness.

**Table 7: Customer direct incentive expenditure detail**

	Washington electric portfolio	Idaho electric portfolio	Washington natural gas portfolio	Total
<b><u>Residential Prescriptive Programs</u></b>				
Appliance recycling	\$ 26,250	\$ 11,250	\$ -	\$ 37,500
Appliances	\$ -	\$ -	\$ -	\$ -
Energy Star Homes	\$ 5,800	\$ 5,200	\$ -	\$ 11,000
Fuel Efficiency	\$ 949,500	\$ 425,500	\$ -	\$ 1,375,000
HVAC	\$ 136,330	\$ 68,880	\$ 477,875	\$ 683,085
Lighting	\$ 1,168,902	\$ 577,752	\$ -	\$ 1,746,654
Shell	\$ 113,779	\$ 70,827	\$ 382,931	\$ 567,537
Water heat	\$ 8,152	\$ 8,878	\$ 11,856	\$ 28,886
<b><u>Residential Behavioral Programs</u></b>				
Opower	\$ -	\$ -	\$ -	\$ -
<b><u>Low-Income Programs</u></b>				
Low Income	\$ 1,803,625	\$ 700,000	\$ 196,375	\$ 2,700,000
<b><u>Non-Residential Prescriptive Programs</u></b>				
EnergySmart Grocer	\$ 206,134	\$ 88,343	\$ -	\$ 294,477
Food Service Equipment	\$ 15,793	\$ 6,768	\$ 44,665	\$ 67,226
Green Motors	\$ 6,489	\$ 2,781	\$ -	\$ 9,270
Motor controls HVAC	\$ 33,713	\$ 14,449	\$ -	\$ 48,162
HVAC	\$ -	\$ -	\$ 61,765	\$ 61,765
Non-residential appliances	\$ 290	\$ 180	\$ 330	\$ 800
Non-residential Prescriptive lighting	\$ 1,138,880	\$ 448,480	\$ -	\$ 1,587,360
Power Management for PC's	\$ 15	\$ 6	\$ -	\$ 21
Prescriptive Shell	\$ 2,635	\$ 1,129	\$ 28,282	\$ 32,046
Standby Generator Engine Block Heater	\$ -	\$ -	\$ -	\$ -
AirGuardian	\$ 57,529	\$ 24,655	\$ -	\$ 82,185
Fleet Heat	\$ 84,000	\$ 36,000	\$ -	\$ 120,000
<b><u>Non-Residential Site-Specific Programs</u></b>				
Non-residential Site-specific	\$ 1,130,558	\$ 668,657	\$ 486,107	\$ 2,285,321
Cascade	\$ 28,700	\$ -	\$ -	\$ 28,700
Total residential incentives	\$ 2,408,713	\$ 1,168,287	\$ 872,662	\$ 4,449,662
Total low income incentives	\$ 1,803,625	\$ 700,000	\$ 196,375	\$ 2,700,000
Total non-residential incentives	\$ 2,704,736	\$ 1,291,449	\$ 621,148	\$ 4,617,332
Total of all incentives	\$ 6,917,074	\$ 3,159,735	\$ 1,690,185	\$ 11,766,994

The non-incentive expense, including both non-supplemental and supplemental expenditures, is detailed to a lower level of aggregation and broken out by portfolio in the table below. Expenses are directly assigned where it is reasonable to do so and allocated based upon the BTU content of each of the programs where a direct assignment is not appropriate. The policy regarding the assignment of costs is to make such assignments based upon the source of the requirement or justification for the expense and the portfolio benefiting from the outcome of that expense.

**Table 8: Non-incentive utility expense detail**

	Washington electric portfolio	Idaho electric portfolio	Washington natural gas portfolio	Total	Supplemental budget	Non-Supplemental budget
Third party non-incentive pymts	\$ 443,160	\$ 88,716	\$ 108,213	\$ 640,089	\$ -	\$ 640,089
Labor	\$ 1,517,664	\$ 905,959	\$ 767,135	\$ 3,190,758	\$ -	\$ 3,190,758
EM&V	\$ 349,500	\$ 145,500	\$ 115,000	\$ 610,000	\$ 10,000	\$ 600,000
Memberships	\$ 139,822	\$ 59,924	\$ 1,900	\$ 201,645	\$ -	\$ 201,645
Outreach	\$ 364,000	\$ 206,000	\$ 130,000	\$ 700,000	\$ 50,000	\$ 650,000
Training/travel	\$ 42,000	\$ 18,000	\$ 15,000	\$ 75,000	\$ -	\$ 75,000
Regulatory	\$ 14,000	\$ 6,000	\$ 5,000	\$ 25,000	\$ -	\$ 25,000
CFL	\$ 5,040	\$ 2,160	\$ -	\$ 7,200	\$ -	\$ 7,200
SLIP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Resource pymts	\$ 125,000	\$ 15,000	\$ -	\$ 140,000	\$ 140,000	\$ -
CPA	\$ 10,000	\$ 2,500	\$ 90,000	\$ 102,500	\$ -	\$ 102,500
R&D	\$ -	\$ 300,000	\$ -	\$ 300,000	\$ 300,000	\$ -
NEEA	\$ 1,336,650	\$ 572,850	\$ 99,781	\$ 2,009,281	\$ 2,009,281	\$ -
<b>Total non-incentive utility expenses</b>	<b>\$ 4,346,835</b>	<b>\$ 2,322,608</b>	<b>\$ 1,332,029</b>	<b>\$ 8,001,473</b>	<b>\$ 2,509,281</b>	<b>\$ 5,492,192</b>

## **VI. 2015 Management Focus**

The 2015 DSM Business Plan identified the following issues for management focus during calendar year 2015:

1. Monitor the DSM Portfolio for cost effectiveness and success in a lower avoided cost environment;
2. Monitor the Behavior Programs and consider restructuring after a shorter program period in order to optimize cost effectiveness; and
3. Make use of RTF UES.

The 2015 DSM Business Plan will focus on these issues and the health of our program as the year proceeds. Challenges ahead will be fast moving technology, the risk associated with projecting energy savings, managing to reduce the measurement and verification costs, and balancing the needs of our customers.