Exh. JES-11
Dockets UE-170485/UG-170486
Witness: Jennifer Snyder

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION d/b/a AVISTA UTILITIES,** **Respondent.**	**DOCKETS UE-170485 and UG-170486 (*Consolidated*)**

EXHIBIT TO
TESTIMONY OF

Jennifer Snyder

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Avista 2018-2019 Draft ACP, Appendix A and Appendix F

October 27, 2017

Washington

2018 Electric Demand-Side Management

Annual Conservation Plan (ACP)

DRAFT

November 1, 2017

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I. EXECUTIVE SUMMARY

Avista Utilities' (Avista or the Company) annual conservation plan (ACR or the Plan) is provided consistent with RCW 19.285.040(1), WAC 480-109-120(2)[1] and requirements outlined in Commission Order No. 01 in Docket No. UE-152076 approving Avista's 2016-2017 Biennial Conservation Plan with conditions.

Avista chose to use its 2017 Electric Integrated Resource Plan (IRP) centered on its Conservation Potential Assessment (CPA), as the basis for its 2018-2019 biennial acquisition target[2]. Avista intends to acquire 73,636 Megawatt-hours (MWh) of qualifying energy efficiency, which is the pro rata share of the ten-year conservation potential[3], during the 2018-2019 biennium in order to fulfill the I-937 and decoupling requirements. Over a ten-year horizon (2018 through 2027), the Company's CPA anticipated the acquisition of 368,181 MWh. For the 2018-2019 biennium, the Company will acquire 73,636 MWh as identified in the IRP process[4]. This amount is the pro-rata share of the ten-year conservation potential which was greater than the two-year cumulative conservation potential of 69,899 MWh.

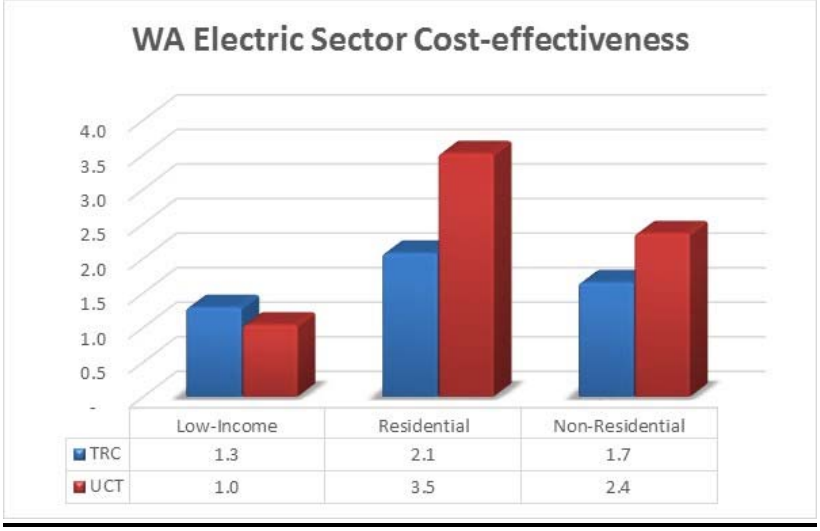
[1] On or before November 15th of each even-numbered year, a utility must file with the commission, in the same docket as its current biennial conservation plan, an annual conservation plan containing any changes to program details and annual budget.
[2] WAC 480-109-100(2)(b) This projection must be derived from the utility's most recent IRP, including any information learned in its subsequent resource acquisition process, or the utility must document the reasons for any differences. When developing this projection, utilities must use methodologies that are consistent with those used in the Northwest Conservation and Electric Power Plan.
[3] WAC 480-109-100(3)(b) The biennial conservation target must be no lower than a pro rata share of the utility's ten-year conservation potential.
[4] The Company will also acquire 15,386 MWh of conservation savings though its behavioral program offerings for an adjusted acquisition target of 89,022 MWh.

The 2018 Plan represents program efforts by the Company in order to achieve its expected eligible acquisition savings for the 2018-2019 biennium. For 2018, the ACP has identified planned conservation savings, including fuel conversions, of 54,069 MWh. Avista has planned expenses of $2.6 million of fully loaded labor funding across electric and natural gas programs in Washington, a 2.2% decrease from the 2017 budget. The proportion of total utility expenditures returned to customers in the form of direct incentives is 71%. The estimated 54,069 MWh is an increase in the forecasted energy savings from the 2017 forecasted acquisition of 33,124 MWh. The primary reason for the increase in savings is the success of the Residential Fuel Conversion program which is forecasted to capture 15,490 MWh of savings. Table 1 below illustrates the savings and total budget per sector for the 2018 program year. Note that budget numbers include Non-Incentive Utility Costs (NIUC).

Table 1: 2018 Savings and Budget by Sector (w/o NEEA):

Washington Electric by Sector	kWh	Budget
Low Income	838,966	$ 1,228,789
Residential	28,618,231	$ 6,966,906
Non-Residential	24,611,440	$ 7,056,793
Total	54,068,637	$ 15,252,488

Figure 1: Portfolio Cost-effectiveness



II. INTRODUCTION

The Company's approach to energy efficiency is based on two key principles. The first is to pursue all cost-effective kilowatt hours and therms by offering financial incentives for 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.

This Annual Conservation Plan 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.

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 IRP and 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
- organization of a marketable customer-facing portfolio

The budgetary projections established within the 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 toward zero.

III. KEY CONSIDERATIONS

a. Evaluation, Measurement and Verification (EM&V) 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 and Process, 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 2018 EM&V budget provides for third-party EM&V services that provide an evaluation of 2018 program year portfolio, along with consolidating these findings with results obtained for 2017 for reporting requirements associated with the Energy Independence Act (EIA) biennium.

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.

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. In the Electric 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 applicable cost-effectiveness test. 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, one Avista staff member has a voting role and a second member of the Avista staff member has a corresponding member role on the Regional Technical Forum (RTF) that serves as an advisory committee to the Northwest Power and Conservation Council (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, non-energy benefits and references that are suitable for inclusion in Avista's Technical Reference Manual (TRM) relating to acquisition planning and reporting. In addition, the Company engages 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.

b. Cost-Effectiveness Metrics, Methodology and Objectives

The Company's planning approach aims to maximize cost effective conservation acquired by analyzing the cost effectiveness of each segment (Residential, Commercial/Industrial and Low Income) and how the measures within the programs contribute to the cost effectiveness of that segment and eventually the individual portfolios. Non-energy benefits (NEBs) are a common topic of discussion in many energy evaluation circles and the Company is appreciative of the valuable work the RTF has done to quantify NEBs for the region. In this Plan where NEBs are calculated and the delivery method is consistent with what is required by the RTF the calculated NEBs were included in the appropriate cost effectiveness tests (Total Resource Costs (TRC) and Participant Cost Test (PCT)). Since the RTF does not currently have UES or NEB values for commercial lighting a similar methodology was used to calculate the NEB value of efficient lighting measures that have longer measure lives than the baseline technology. The Company will continue to follow and participate in RTF activities around NEBs and will include NEBs in the cost effectiveness calculation when appropriate.

Details regarding how Avista applies the avoided costs and cost-effectiveness methodologies to the estimation of the 2018 portfolio are contained in Appendix C to this Plan. The results of the TRC and Utility Cost Test (UCT) tests are summarized by program and portfolio in Appendix A.

c. 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. The Company is not currently planning any revisions to schedules 90 or 190 tariffs.

d. Schedule 91 and 191 Revisions

The Company is currently monitoring the balance in both the electric and natural gas tariff riders. As of the end of August 2017, the negatives (underfunded) balances were $14 million electric and $0.1 million natural gas. WAC 480-100-130(2) requires the utility to file on or before June 1st every year to "true up" the rider balance with an August 1st effective date. As we continue to monitor the balances, the Company may, with the guidance of its Advisory Group propose to file a true up at a time other than June 1st.

e. Washington Energy Independence Act Standards for the 2018-2019 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. 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.

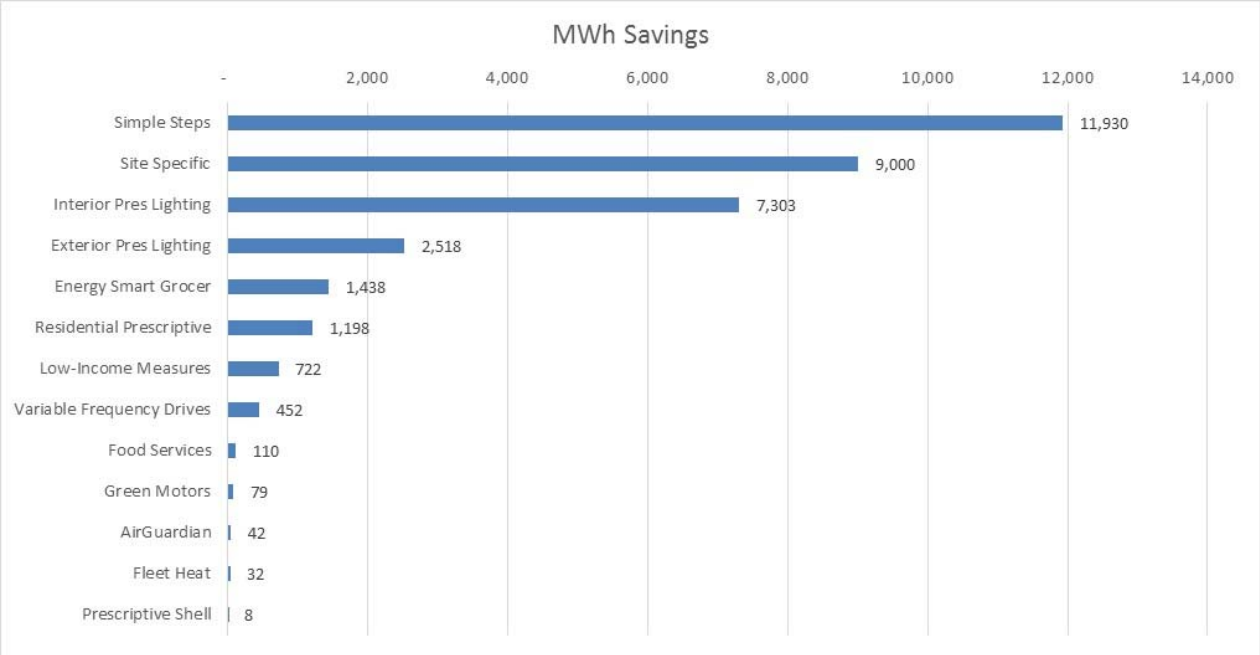
For the 2018-2019 biennium, the total BCP target subject to penalty is 79,785 MWh. This amount represents the overall conservation to be obtained by Avista before applying the additional decoupling commitment. As part of the General Rate Case Settlement Agreement in Docket Nos. UE-140188 and UG-140189, 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 2016-2017 biennial target. After applying the decoupling commitment of 3,989 MWh, the total local 2018-2019 biennium target is 83,774 MWh. The scope of the DSM ACP covers the majority of the acquisition eligible to achieve this target however, does not include efficiencies achieved through distribution or generation facilities.

Since the Washington EIA target was established based upon Northwest Power and Conservation Council methodologies and the Council's RTF Unit Energy Savings (UES), those same methodologies and savings are employed, to the extent possible, in measuring the savings eligible to achieve that target. The planning effort has, with a few isolated exceptions, adopted the same approach so as to generate the best prediction of how 2018 portfolio performance will be retrospectively measured. The use of RTF UES also assists in the management of the Company's EM&V expense by reducing the expenses associated with impact evaluation. However, the relationship between the regional utilities and the RTF is a symbiotic one and any impact evaluations performed on a current RTF measure will be shared with the RTF to help improve the quality of the regional deemed UES.

IV. DSM PORTFOLIO OVERVIEW

Avista's DSM portfolio is comprised of residential, low income and non-residential programs. For 2018, the Company anticipates approximately 34,832 MWh of I-937 qualified savings from its program offerings. The below figure illustrates the major categories from which those savings are achieved.

Figure 2: 2018 MWh Savings



a. 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, 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.myavista.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 continues to offer programs delivered to residential customers through third-party contractors such as regional manufacturer buy-downs for small devices such as LEDs, lighting fixtures and showerheads. Avista is planning to continue offering regional manufacturer buy-downs in 2018 and will also look to introduce pilot programs to better engage residential customers.

A measure-by-measure evaluation of the incremental contribution to the TRC test cost-effectiveness of the portfolio is the primary guidance in reaching decisions regarding eligibility for measures. For natural gas, the 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 a 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.

Manufactured Homes are an important customer segment within the residential portfolio and one that is included in many of our 2018 program offerings. We provide incentives through our ENERGY STAR Homes incentive for Eco-Rated manufactured homes. The Company offers a ductless heat pump incentive and a heat pump water heater incentive that offers manufactured homes additional options especially when natural gas is not available. We continue to experience positive results in the manufactured home market with our electric to natural gas furnace incentive. The Company also offers high efficiency natural gas incentives for qualifying furnaces and tankless water heaters. Existing manufactured homes without natural gas are also eligible to apply for excess construction allowance contributions towards the cost (after DSM) for qualifying natural gas water heater and high efficiency natural gas furnaces.

These are just some highlights of continued efforts to focus on and serve manufactured homes along with stick built residential dwellings. Avista recently completed a comprehensive, direct install program treating manufactured homes and delivering $2.4 million in duct sealing and repair. While Manufactured Homes now have a comparable ENERGY STAR rating in Eco-Rated, Avista was an early adopter in recognizing the cost-effective savings and began offering ENERGY STAR home incentives to manufactured homeowners. As another example of Avista's efforts that may benefit manufactured housing, Avista provides $2.7 million annually ($2 million in Washington, $700,000 in Idaho) to contracted Community Action Partner (CAP) agencies to treat and improve income-qualified homes. Customers in manufactured homes are an area of focus where the CAPs bring a wealth of experience and expertise to assist these customers.

b. Low Income Portfolio Overview

The Company utilizes the infrastructure of seven CAP agencies 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 seven agencies serving Avista's entire Washington service territory receive an aggregate annual funding of $2,000,000. The distribution of these funds is represented in the table below:

Table 2: 2017 Low Income Funding by CAP Agency

CAP Agency	Counties Served	Funding Allocation
SNAP	Spokane	$1,335,000
Rural Resources	Ferry, Lincoln, Pend Oreille, Stevens	$174,000
Community Action Center Whitman County	Whitman	$146,000
Opportunities Industrialization Council	Adams, Grant	$75,000
Spokane Indian Housing Authority	Stevens County	$20,000
Washington Gorge Action Programs	Klickitat, Skamania	$10,000
Community Action Partnership (Lewiston)	Asotin	$240,000
		Total $2,000,000

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. Agencies have included in their annual funding a 15% reimbursement for administrative costs. Health and human 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.

The list of measures offered is derived from the Department of Commerce's Weatherization Manual. To guide the agency toward projects that are most beneficial for the Company's energy efficiency efforts, an "Approved" list of measures is provided that allows for

full reimbursement. Measures reimbursed at 100% have a Total Resource Cost (TRC) of 1.0 or better. Per WAC 480-109-100(10)(a), measures identified through the priority list in the Weatherization Manual are considered cost-effective. For efficiency measures with a TRC less than 1.0 and not included on the priority list, 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 Human Safety allotment towards covering the full cost of the "Rebate" measure if they do not have other funding sources to fill in the difference. In 2018 some measures, particularly weatherization, have decreased TRCs below 1.0, however, most are included on the Weatherization Manual priority list and therefore reimbursed at 100%.

The Company is aware that there is concern about declining participation in Low-Income programs, however, we believe that this has been primarily driven by higher costs per weatherized household over the same fixed amount of Low-Income funds available. An actual participant goal would be difficult to determine given that the number of treated homes depends upon the depth and cost of weatherization required by the participating homes as well as the other non-utility funds available to the CAP agencies in any given year.

c. Non-Residential 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.

d. Non-Residential Site-Specific Program Overview

Avista offers nonresidential customers the opportunity to propose any energy efficiency project with documentable energy savings (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 Washington electric Schedule 90 or 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. If the Company falls short of the conservation target over the next two biennium's under WAC-109-100(3)(c)(ii), five percent of the shortfall can come from excess conservation at a single large facility, which would require additional tracking of savings for those facilities that have loads greater than 5 aMW.

Implementation improvements 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 four 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.

The site-specific program savings can be difficult to predict due to large projects with long sales cycles. General economy shifts 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.

e. Regional Market Transformation

Avista's local DSM portfolio seeks to influence the decision of customers 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, entered 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 the 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 customers continue to benefit from these efforts.

For 2018, the Company's portion of NEEA's Electric budget is expected to be about $1,400,000 for Washington.

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 2018 local portfolio developed within this Plan.

V. PILOT PROJECTS

As described in WAC 480-109-100(1)(c), utilities must engage in adaptive management of conservation portfolios, to ensure that portfolios appropriately respond to changing market conditions during a biennium. Adaptive management of a conservation portfolio includes

conducting pilot programs of new technologies or new approaches to engage customers in conservation.

Avista is continuously evaluating new technologies and new approaches for attaining energy conservation. As the Company pursues all cost-effective kilowatt hours and therms, piloting new programs allows the Company and its customers to explore new avenues for obtaining energy savings. For 2018, the Company is exploring multiple pilot programs for both residential and non-residential customers. The progress of these pilot programs was shared with the Advisory Group.

a. Residential In-Home Energy Audit and Weatherization

Avista presented the residential direct install program pilot idea to its advisory group for input during the Fall 2017 meeting. The program is anticipated to begin early 2018 and will be contracted through a third-party vendor. The preferred geographic locations for this pilot are populated areas that border Washington and Idaho. That way, a program could be present in both jurisdictions and serviced by a single contractor.

The pilot is designed for qualified customers that seek energy assistance in the form of a home visit to evaluate their home's current state and recommend improvements to make their home more energy efficient. At the time of the visit, the representative will also install energy saving measures along with assess the home's weatherization. The pilot includes the installation of:

- LED lamps
- Water aerators
- Showerheads
- Advanced Power Strips

Along with installing the above equipment during the site visit, the representative will also asses the current level of insulation in the home's attic and/or crawl space. Doing this will inform the customer of their home's insulation rating (R value) which will determine if the customer qualifies for an energy efficiency rebate if they choose to install additional insulation. The

electrical contractor will perform audits on the qualifying customers and sent those specifications to Avista for approval. The overview budget for this program is $263,460.

This pilot promises to be effective in addressing Hard to Reach Markets and providing education to our customers through having direct contact with individuals knowledgeable in energy efficiency matters. In addition, it provides an improved avenue to supplying residential customers with weatherization programs by pre-verifying current insulation levels in the customers' home.

b. Multi-Family Hard to Reach Program

Avista presented to the advisory group during the Fall 2017 meeting the concept of a Multi-Family Direct Install Program. This program would target the hard to reach markets, limited income customers, and individuals that rent or own rental properties. This program would incentivize owners of multifamily buildings to make energy efficient improvements including weatherization improvements, water aerators, low flow showerheads, low flow faucet aerators, LED lighting, vending misers, smart power strips and other measures in both individual housing units as well as common spaces.

c. Smart Thermostat Pilot

As part of our behavioral program offering for 2018, Avista will partner with an outside vendor to provide 1,000 customers smart thermostats and access to quarterly energy data. This pilot would run concurrently in Idaho and Washington. The intent of the program is to determine how timely energy consumption feedback will effect the behavior of users. The proposed pilot will utilize smart thermostats and smart phone apps to provide customers with auditory or visual alerts that inform on energy use and give energy savings tips. The goal of this pilot is to translate data to actionable "energy efficiency events" and a whole home scorecard.

d. Residential Wall Insulation Pilot

Partner with a siding and insulation company in the Spokane/CDA area. Offer to pay the incremental cost of the first 25 homes who want to do siding to add 2 inches of foam board and a

new building wrap and a ¼ inch gap for humidity control under their new siding. Avista will evaluate the savings and decide if a full program is cost effective. There is an opportunity to do a post blower door to make sure there is adequate ventilation post upgrade and offer energy recovery ventilators to control air quality.

e. **Ecova Commercial Building Operation Simulation Pilot**

Continuation of Ecova Commercial Building Operation Simulation Pilot with monthly billing data in Lewiston\Clarkston. Avista has completed the Phase 1 of this pilot and received positive results. With the bulk of AMI earmarked for 2019, the Company is considering another Phase 1 with monthly data so we can highlight customer efficiency needs prior to full AMI rollout.

f. Low-Income Multifamily Pilot Program

The Low-Income Multifamily Pilot Program is designed to service CAP agency owned complexes throughout Avista's service territory and offer cost effective weatherization measures. This project will be in partnership with the CAP agencies and other third-party contractors. The project's goal is to explore the potential for including weatherization projects in Avista's portfolio of measures and offer solutions for hard to reach markets such as multifamily housing. In addition, this weatherization pilot would address the Company's goal of obtaining deep retrofits. Measures proposed with this pilot program include mini-split heating systems, furnace replacements, ventilation systems, window replacements, and insulation measures. The Company, along with the Energy Project will continue to develop this pilot program going forward and will discuss the timing, cadence, and funding mechanisms going forward.

VI. 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 and Conservation Council methodologies for the analysis of DSM. 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 (summarized in Appendix B). For planning purposes, the focus is upon the TRC and UCT test since that is the basis for optimizing the portfolio for the reasons previously explained, and therefore the explanation of Avista's methodologies focus upon those two tests. Historically we have found that, absent significant mid-year changes in the portfolio, the planning estimate matches reasonably close 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 necessary. Since CPA's are only performed every two years, and since the inputs to the CPA are locked many months in advance of filing the IRP itself, there is considerable time for movement in these inputs and the development of other opportunities. 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)
- Cost to perform conservation potential assessment studies

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 cost are allocated based upon a programs share of portfolio avoided cost value acquisition when direct assignment is not possible. The result is a program-level TRC and UCT cost-effectiveness analysis that incorporates all of these allocated costs. The approach of ensuring that all costs are allocated at the program level is based upon feedback from previous Avista business planning efforts asserting that programs are generally sufficiently large and that the addition or deletion of a program should be significant enough to lead to a resizing of portfolio infrastructure cost.

Since the costs and benefits associated with the adoption of a measure may accrue over time, it is necessary to establish a discount rate. Future costs and benefits are discounted to the present value and compared for cost-effectiveness purposes. Generally, energy and non-energy benefits accrue over the measure life and costs are incurred up-front. During the late summer of

2016, the Company presented to the Advisory Group a proposal to use a real Weighted Average Cost of Capital (WACC), instead of a nominal figure. This suggestion received positive feedback, therefore a real discount rate of 4.27% was used as the discount rate for the 2018 Plan based upon a nominal WACC of 7.45%.

The calculation of the TRC test benefits, to be consistent with Northwest Power and Conservation Council methodologies, include 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 and (in the case of the low income program) inclusion of the cost of providing base case end-use equipment as part of a fully funded measure and the value of health and human 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.

VII. ANALYTICAL REVIEW OF MEASURES BY PROGRAM

The annual 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 2018 portfolio.

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. 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
- Residential Fuel Conversions
- Low Income Programs
- Low Income Fuel Conversions
- Non-Residential Prescriptive Programs
- Non-Residential Site Specific Programs

Residential Programs

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 separated the residential programs into 3 individual programs:

- Residential Prescriptive
- Residential Fuel Conversions
- Simple Steps Smart Savings

All windows, thermostats, heat pump water heaters and heating/cooling equipment were analyzed under a single program but measure level cost effectiveness can be found in Appendix A. The Simple Steps, Smart Savings is an upstream buy down program and includes residential lighting and showerheads.

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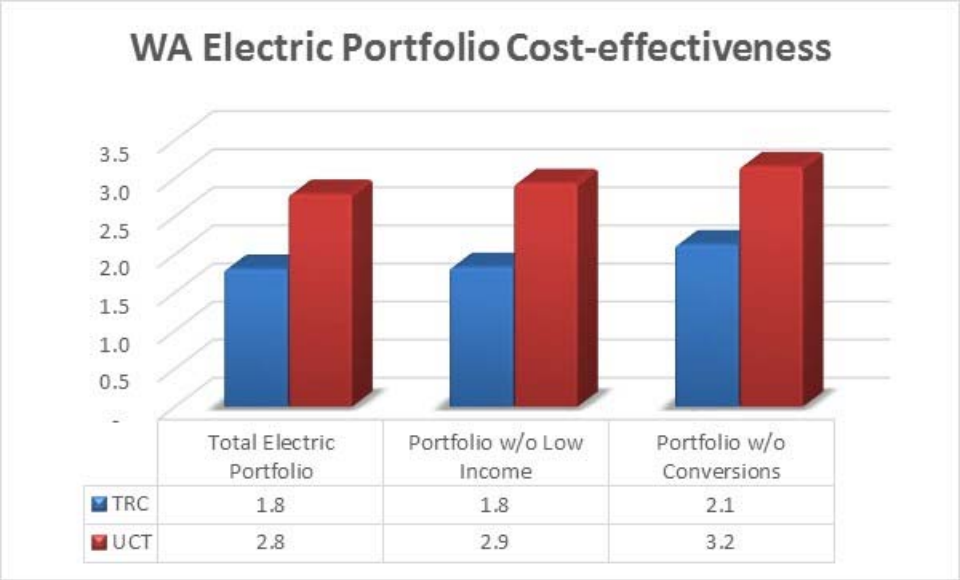
The program-by-program cost-effectiveness of the portfolio is graphically represented in the figure below:

Figure 3: Residential Programs Cost-Effectiveness



Avista's movement towards Advanced Meter Infrastructure (AMI) presents multiple opportunities for both the Company and its customers. One benefit to energy conservation is that customers will be able to receive faster interval data on their energy usage and have the opportunity to adapt based on that data. As the Company approaches the implementation of AMI, changes have been made to our current behavioral program offerings.

For 2018, the Company plans to replace is current Oracle/OPower Home Energy Reports (HER) Program with a behavioral program that focuses on providing customers with energy usage information through smart thermostats and advanced analytics tailored to customer premise. This limited pilot will be offered to 1,000 customers in Washington and Idaho and will serve as a test to determine the potential for integration of interval data feedback reporting to customers. The program is planned to take place during 2018 which will serve to bridge the gap between the Home Energy Reports and AMI's implementation. In addition, the pilot program will provide a more accurate baseline by allowing the persistence from the current home energy report to settle prior to AMI implementation. The planned timeframe for AMI implementation will begin in late 2018 and will continue on through the rest of the 2018-2019 biennium. The 2 year deployment is projected to install 375,000 electric and 365,000 gas meters across Avista's service territory.

Early on in the planning process, the Company had identified that the HER program estimated 15,386 MWh of savings would be achieved in the 2018-2019 biennium. Because the Company had communicated on multiple occasions that the level of savings in the biennial conservation target were inclusive of the HER program, the Company decided to keep the 15,386 MWh in its BCP target.

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 2018, Avista has defined 26 electric and natural gas measures available to Washington CAPs. Additionally, the CAP agencies are permitted to expend up to 15% of their funding on health and human safety measures on homes receiving Avista-funded treatment. Additionally, 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 measures that have a TRC of 1.0 or greater and those measures on the Weatherization Manual priority list. Consequently, the vast majority of measures are covered at 100% reimbursement. If a CAP encounters a measure which they intend to pursue that is not fully funded, the CAP can either use Avista health and human 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. Avista defines two major non-energy benefits uniquely applicable to the low income program. These are:

1. End-use non-energy benefit - CAPs 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 human safety non-energy benefit - The 15% health and human 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 human safety expenses that is equal to the amount expended.

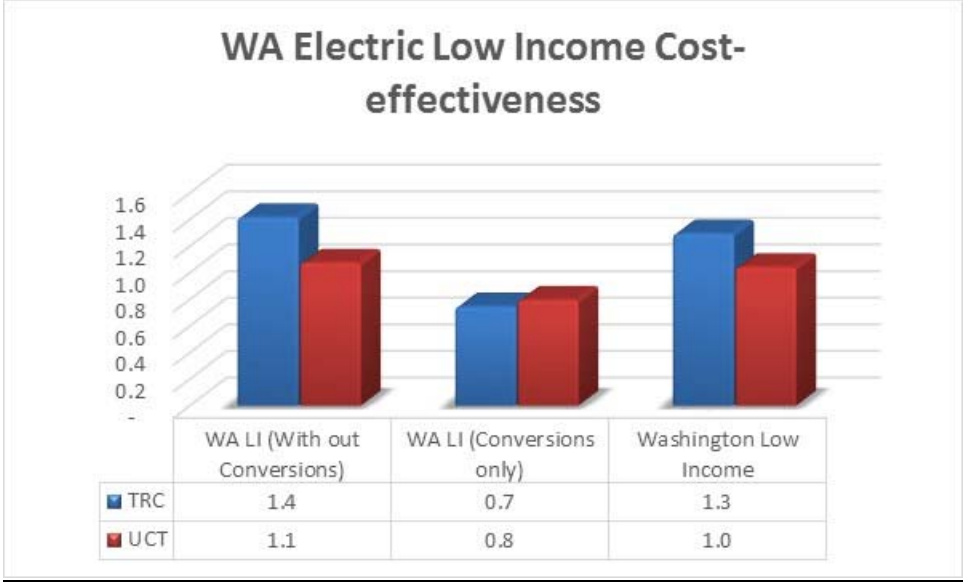
Other non-energy benefits associated with individual measures are quantified and included within the low income portfolio analysis in a similar manner to any other measure within the Avista DSM portfolio.

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 separate 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.

Fuel conversions are not included in the I-937 acquisition target therefore Low Income Fuel Conversion in Washington are analyzed separately. Figure 4 below identifies the TRC and UCT cost effectiveness for the Low-Income programs.

Figure 4: Low Income Cost-Effectiveness



Non-Residential 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 2018 Electric portfolio is expected to consist of ten prescriptive programs listed below:

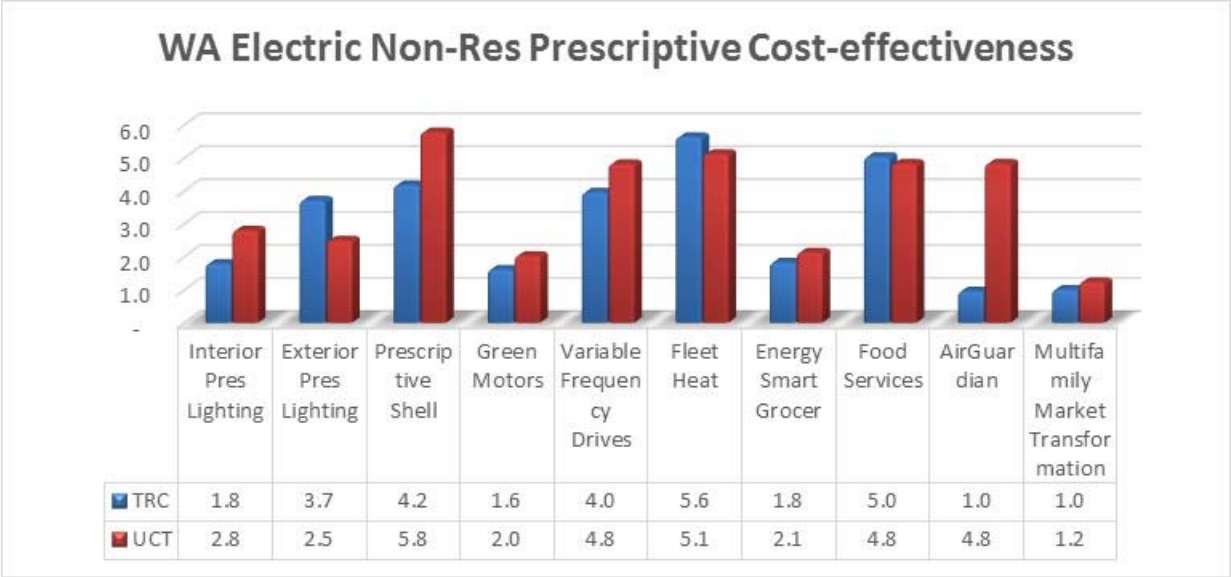
- Interior Prescriptive Lighting
- Exterior Prescriptive Lighting
- Prescriptive Shell
- Green Motors
- Motor Control HVAC (VFD)
- Fleet Heat
- EnergySmart Grocer

- Food Service Equipment
- AirGuardian
- Multifamily Market Transformation

Three of the programs (EnergySmart Grocer, Air Guardian and Green Motors) are offered to customers through third-party implementation staff (ClearResult and Green Motors Practices Group respectively) while the other seven programs are fielded by Avista DSM staff.

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 5 below identifies the TRC and UCT cost effectiveness for the Prescriptive Non-Residential Program.

Figure 5: WA Non-Residential Prescriptive Programs Cost-Effectiveness



	Interior Pres Lighting	Exterior Pres Lighting	Prescriptive Shell	Green Motors	Variable Frequency Drives	Fleet Heat	Energy Smart Grocer	Food Services	AirGuardian	Multifamily Market Transformation
TRC	1.8	3.7	4.2	1.6	4.0	5.6	1.8	5.0	1.0	1.0
UCT	2.8	2.5	5.8	2.0	4.8	5.1	2.1	4.8	4.8	1.2

Site-Specific Program

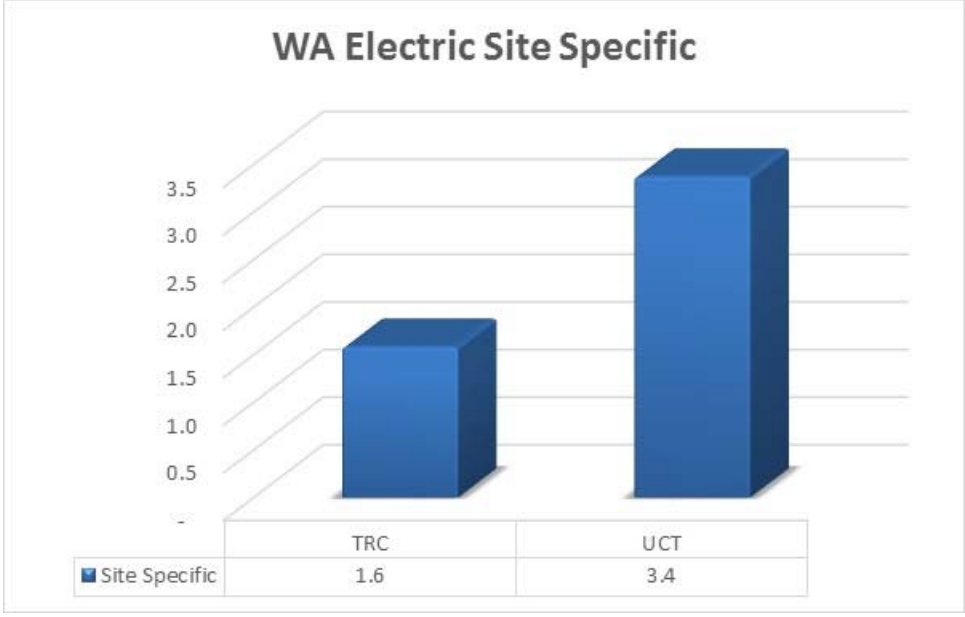
Avista's site-specific program has historically been one of the largest and frequently one of the more cost-effective programs. Any measure with documentable and verifiable energy savings that is not otherwise covered by a prescriptive program is eligible for the site-specific

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 planning purposes, the program cost-effectiveness calculations were based off of the structure of schedule 90 and 190. Estimated savings from Site Specific projects for 2018 are based off of the year to date 2017 savings and then annualized for a 12 month period.

The Company does expect some site specific fuel conversion projects to occur in 2018, however the size and scope of those projects are very difficult to estimate, so actual estimates have not been included. Figure 6 below identifies the cost-effectiveness for the Site-Specific Programs.

Figure 6: Site-Specific Program Cost-effectiveness



VIII. SECTOR COST-EFFECTIVENESS PROJECTIONS AND RELATED METRICS

Figure 7: Sector Portfolio Cost-Effectiveness

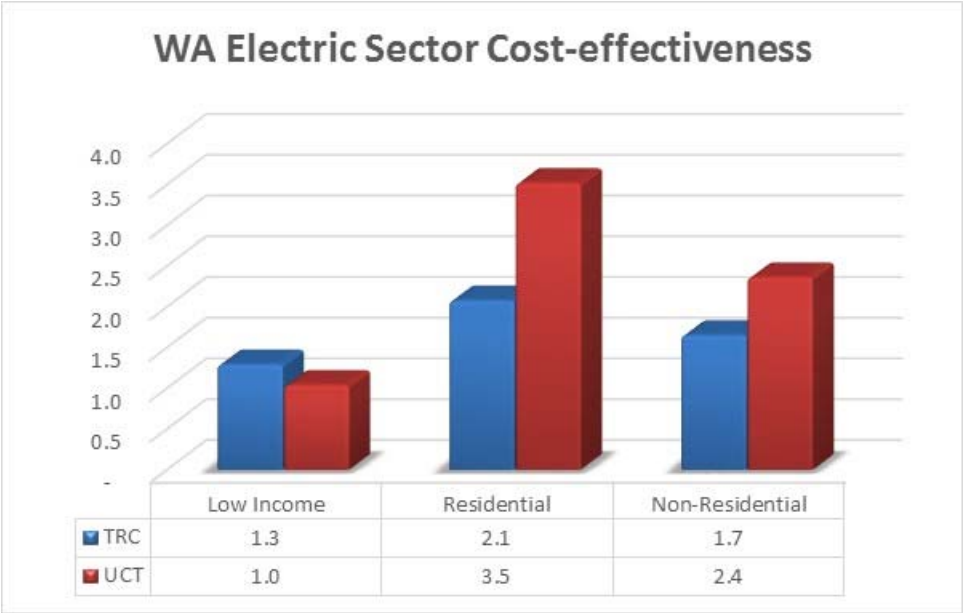


Figure 8: Sector Portfolio Savings

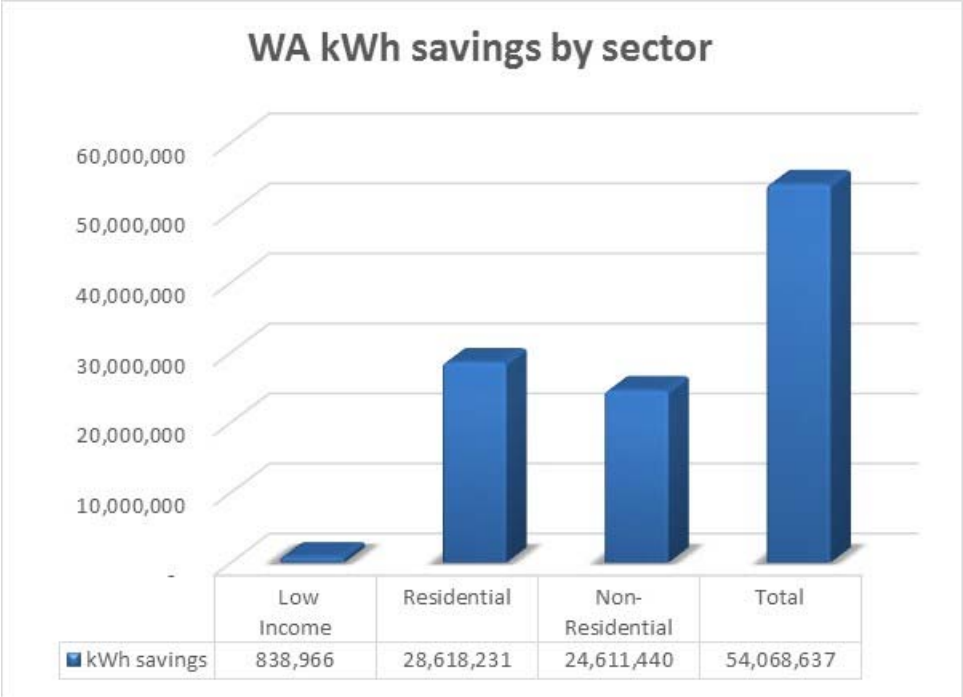
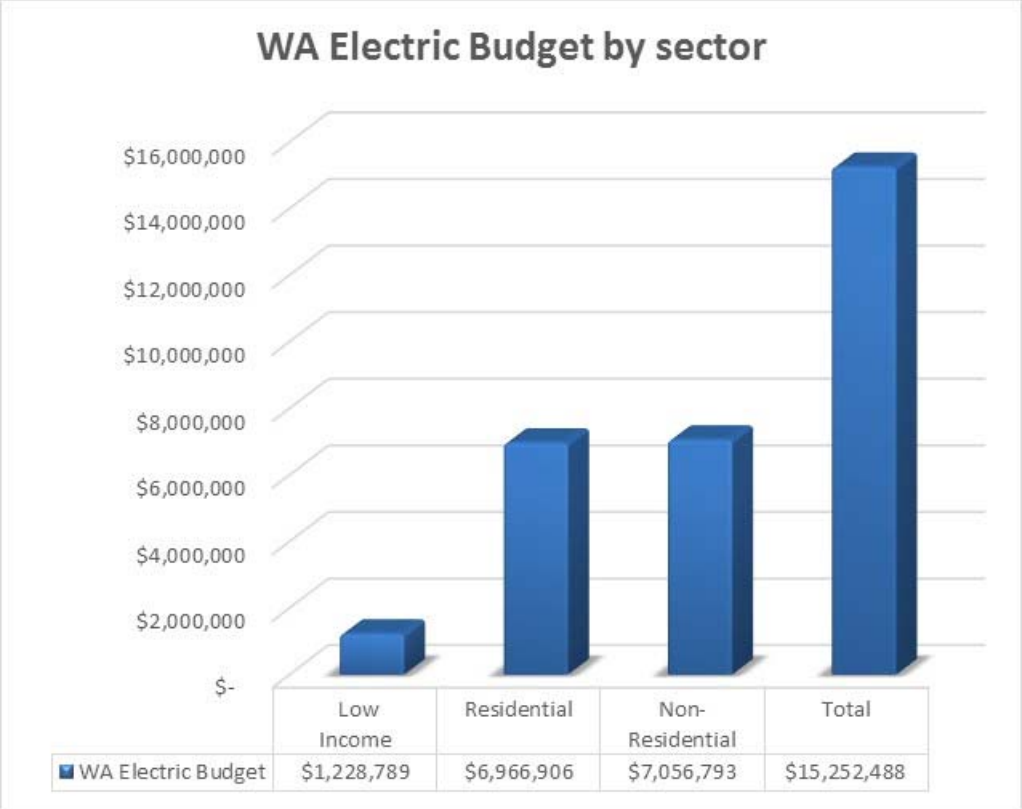


Figure 9: Sector Portfolio Budget



IX. WASHINGTON I-937 ACQUISITION TARGET

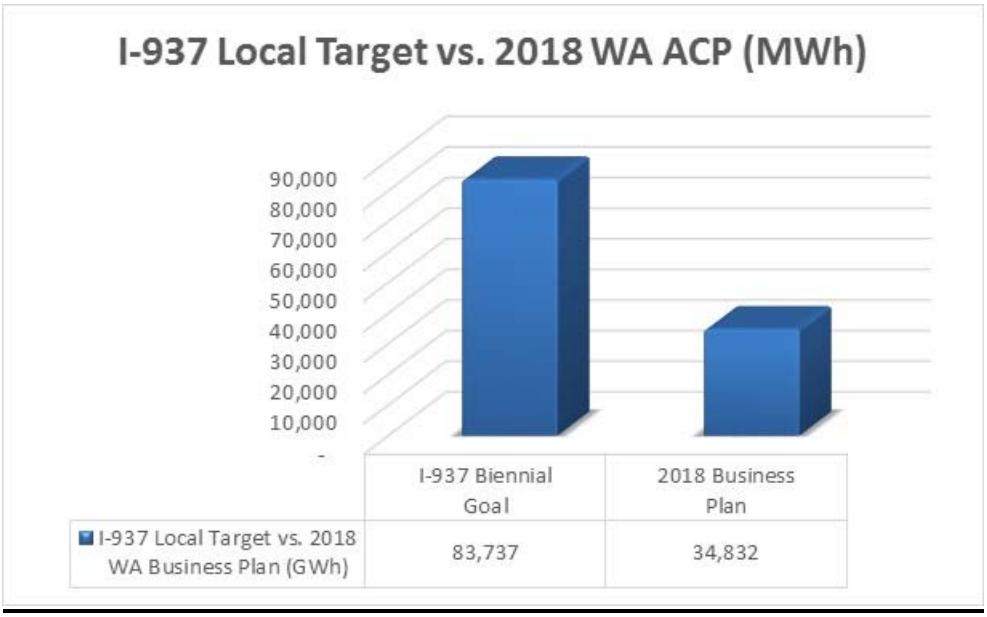
The 2018-2019 Washington I-937 local DSM acquisition target for the biennium is expected to be 83,737 MWh. To fulfill the total biennium conservation target the 2018 business Plan's expected eligible acquisition is 34,832 MWh. This amount excludes forecasted conservation savings from fuel conversion programs of 19,237 MWh.

Table 3: Washington I-937 Goal

Category	Target (MWh)
Pro Rata Share of 10 year conservation potential	73,636
Behavioral Program Savings	15,386
Less NEEA Pro Rata savings identified within the CPA	(9,986)
End-Use Efficiency Measures Subtotal	79,036
Distribution and Street Light efficiency	749
Portion of BCP Target Subject to penalty	**79,785**
Decoupling Commitment	3,989
Total Local Biennium Target	**83,774**
NEEA 2-year Forecasted Savings Acquisition	9,986
Total BCP Target with Regional Savings	**93,760**

Figure 10 below represents the expected 2018 ACP savings of 34,832 MWh. This amount excludes forecasted savings from Avista's fuel conversion programs of 19,237 MWh.

Figure 10: Local I-937 Target (2018/2019) vs. 2018 WA I-937 Goal



X. SUMMARY OF 2018 BUDGET

Labor expenditures, which includes salaries and all loaded benefits, account for about 58% of the Company's non-incentive utility cost (excluding supplemental costs) which is a slight increase from the 50% in the 2017 Annual Conservation Plan. Projections of expected labor requirements by job classification are made by managers within the DSM team and labor overheads are applied.

Labor is allocated to a programs based of the weighted value of benefits the program brings to the overall portfolio.

The expectations in 2018 indicate that $3.7 million of fully loaded labor funding across electric and gas programs in both Washington and Idaho, a 2.2% decrease from the 2017 budget. This amount will fund 25 FTE (Full time equivalent) spread across 33 different individuals compared to 24.5 FTE spread across 31 individuals in 2017.

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 measures and to maximize the value of the portfolio without budgetary constraints. This process assumes that prudently incurred expenditures will be fully recoverable through the DSM tariff rider and that revisions in the tariff rider surcharge will be sufficiently 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 2018 budget projection is summarized below. The table includes elements of the DSM budget that have been designated as "supplemental" to indicate that they are unrelated to the current year operations and are not included in the cost-effectiveness calculation.

Table 4: Summary of the 2018 DSM Budget

	2018 Washington Electric Budget	Supplemental Budget	Non-Supplemental Budget
Total Incentives	$10,756,294	$0	$10,756,294
Total Labor	$2,210,768	$0	$2,210,768
Total non-labor/non-incentive	$3,790,426	$1,505,000	$2,285,426
Total	$16,757,488	$1,505,000	$15,252,488

The Company continues to track 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.

Table 5: Proportion of funds returned to customer through direct incentives

% of utility expenditures returned to customers via direct incentives	71%

The program-by-program details of the expected incentive expenditures are provided in greater detail below. The incentives are clearly highly correlated to program throughput and energy acquisition.

Table 6: Customer Direct Incentive Expenditure Detail

Low Income Programs	Direct Incentive Expenditure
WA LI (With out Conversions)	$801,109
WA LI (Conversions only)	$106,993
Residential Programs	
Res Prescriptive	$164,196
Res Conversions	$3,084,450
Simple Steps	$1,093,128
Non-Residential Programs	
Interior Pres Lighting	$1,167,149
Exterior Pres Lighting	$439,855
Site Specific	$1,450,000
Pres Shell	$1,085
Variable Frequency Drives	$42,900
Pres Green Motor	$7,070
Fleet Heat	$2,082
Energy Smart Grocery	$216,908
Food Services	$6,289
Multifamily Market Transformation	$2,163,000
AirGuardian	$10,080
Total Low Income Incentives	$908,101
Total Residential Incentives	$4,341,774
Total Non-Residential Incentives	$5,506,419
Total of all incentives	$10,756,294

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. The allocation of these expenses is allocated by the percentage of value provided by each program. The policy regarding assigning costs is based upon the source of the requirement or justification for the expense and the portfolio benefiting from the outcome of that expense.

Table 7: Non-Incentive Utility Expense Detail

	Washington electric portfolio	Supplemental budget	Non-Supplemental budget
Third Party non-incentive payments	$ 716,047	$ -	$ 716,047
Labor	$ 2,210,768	$ -	$ 2,210,768
EM&V	$ 781,004	$ -	$ 781,004
Memberships	$ 59,500	$ -	$ 59,500
Outreach	$ 476,000	$ -	$ 476,000
Training/Travel	$ 44,625	$ -	$ 44,625
Regulatory	$ 29,750	$ -	$ 29,750
Software	$ 178,500	$ -	$ 178,500
CPA	$ 105,000	$ 105,000	$ -
NEEA	$ 1,400,000	$ 1,400,000	$ -
Total	$ 6,001,194	$ 1,505,000	$ 4,496,194

XI. STUDIES AND OTHER ITEMS

a. On-Bill Repayment

As identified in the 2017 Washington Annual Conservation Plan, the Company researched the feasibility of providing customers with a financing option to assist in obtaining new energy efficient equipment. This specific form of assistance involved customers obtaining loans from third party lenders and having those loan repayments collected through Avista's monthly billing. The monthly payment would appear on the face of the customer utility bill as a separate line item from their utility service.

The Company is committed to exploring new avenues to make obtaining energy efficient equipment available to customers and part of that effort is removing obstacles that would hinder that acquisition. While on-bill repayment could be beneficial to the customer, the additional complexity, monitoring, and administrative burden outweighs those benefits. The Company will continue to pursue other avenues to connect with customers in a way that is beneficial for customers, the Company and its ratepayers.

b. iEnergy DSM Enterprise Software Integration

During 2017, Avista began partnering with an outside party, Nexant, to develop and integrate their Demand Side Management enterprise software suite, iEnergy. This program is a purpose-built, data management, analytics and customer engagement platform that assists utilities in managing their business processes. The platform includes an end-to-end management module that tracks and reports energy efficiency savings and expenses along with providing timely reporting for internal and external stakeholders. In addition, the software contains separate modules that provide resources and tools for trade allies, customers, and other parties. The Company anticipates that the integration of iEnergy will take place over the course of the 2018-2019 biennium with the first program transitioning to the new software beginning early 2018.

c. Particulate Matter 2.5

Using a nationwide network of monitoring sites, EPA has developed ambient air quality trends for particle pollution, also called Particulate Matter (PM). $PM^{2.5}$ describes fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller. Under the Clean Air Act, EPA sets and reviews national air quality standards for PM. Avista has entered into a contract to start to develop PM 2.5 non-energy values for offering wood burning on a measure BTU basis.

d. Residential Fuel Conversions

The Company continues to pursue Electric to Gas fuel conversion measures within its DSM portfolio of conservation offerings. For 2018, the Company will offer an Electric to Gas Furnace conversion rebate, a combination rebate that includes Electric to Gas Furnace and Water Heater conversions, and Electric to Gas Vent Wall Heat conversion. While the conservation savings obtained from the electric to gas conversion programs are not included in I-937, the overall benefit to customers for the Company's heating zone allows customers to pursue the least cost option for space and water heating. The Company anticipates that 15,490 MWh of savings will be achieved through its residential fuel conversion program in 2018. The overall budget for fuel conversion programs is $4,563,322 which includes incentive costs, internal labor and other non-incentive

utility costs. The fuel conversion program continues to achieve cost effectiveness with a TRC of 1.7 and a UCT of 3.1.

e. Real Time M&V 2.0

The Company is halfway through this small review. The purpose is to see if we can identify and measure immediate savings in residential customers using interval meter data. The Company is using interval meter data from Pullman, Washington. The Company hopes to finish this review in October 2017 with possible findings from November 2017 through January 2018.

Appendix A:

2018 Program Plans

Appendix A

2018 Program Plans

Contents

I. LOW INCOME PORTFOLIO

a. Low Income Program

General Program Description:
The Company utilizes the infrastructure of seven Community Action Partner (CAP) agencies to deliver low income energy efficiency programs (aka Weatherization). The CAPs have the ability to income-qualify customers, generate referrals through their energy assistance efforts, and have access to a variety of weatherization funding sources which can be utilized to best meet the customer's home energy needs. The seven agencies serving Avista's entire Washington service territory receive an aggregate annual funding amount of $2,000,000.

Program Implementation:
The agencies are allowed to spend their annual allocated funds on either electric or natural gas efficiency measures. The home must demonstrate a minimum level of electric or natural gas energy use for space heating use to be eligible to use the Avista funds. The agencies are authorized to use 15% of their funds for administration cost reimbursement. The Company also permits the agency to use up to 15% of their contract to fund health and safety improvements. Health and safety spend is at the agency's discretion and offers a bit of flexibility to help preserve the integrating of the improvements that have been installed in the home.

Below is the funding allocation by Agency and the county(ies) they serve:

2018 Low Income Funding by CAP Agency

CAP Agency	County	Funding
SNAP	Spokane	$1,335,000
Rural Resources Community Action	Ferry, Lincoln, Pend Oreille, Stevens	$194,000
Community Action Center	Whitman	$146,000
Opportunities Industrialization Council	Adams, Grant	$75,000
Spokane Indian Housing Authority	Stevens County	$20,000
Washington Gorge Action Program	Klickitat, Skamania	$10,000
Community Action Partnership	Asotin	$240,000
		Total $2,000,000

Spokane Indian Housing Authority (SIHA) joined the agency mix in 2016 to serve Avista's Washington customers in Stevens County. This organization has been mentored and certified by the Department of Commerce and is part of the same rigor and oversight as other traditional "network" agencies. While portions of SIHA territory overlap with an existing network agency the Company is pleased that additional effort is available to serve homes in this hard-to-reach location. Over the years,

the total low income funding allotment may not be fully spent out due to a variety of circumstances. The 2018 plan will continue with a budget of $2,000,000 to serve the income qualified home.

To guide the agency toward projects that are most beneficial and cost-effective for the Company's energy efficiency efforts, an "Approved" measure list is provided that in the majority of cases has a Total Resource Cost (TRC) of 1 or better for electric improvements or a Utility Cost Test (UCT) of 1 or better for natural gas improvements. The Approved list also includes measures that appear on the agency Priority List as contained in the Washington State Department of Commerce Weatherization Manual July 2017 Edition. The list of the 2018 Approved Measures can be found in the table below:

2018 Approved Measures - Washington

Electric Efficiency Measures	Natural Gas Efficiency Measures
Air infiltration	Air infiltration
Duct Sealing	Duct sealing
Attic insulation	Attic insulation
Duct insulation	Duct insulation
Floor insulation	Floor insulation
Wall insulation	Wall insulation
Energy Star Door	Energy Star door
Combo: Electric to gas furnace & water heater	Energy Star window
Electric to natural gas furnace	High efficiency furnace (90% AFUE)
Electric to ductless heat pump	High efficiency water heater (.82 EF)
Electric to air source heat pump	
Heat pump water heater(0-54 gal 1.8 EF)	
LED's	

For efficiency measures with a TRC or UCT less than 1 a "Rebate" that is equal to the Company's avoided cost of energy is provided as the reimbursement to the Agency. Often the rebate amount will not cover the full cost of the measure. The agencies may choose to utilize their Health and Safety allocation towards covering the full cost of the "Rebate" measure if they do not have other funding sources to fill in the difference. The list of the 2018 Qualified Rebates can be found in the table below:

2018 Qualified Rebates - Washington

Electric Efficiency Measures - Rebate
Energy Star Windows
Energy Star Refrigerator

2018 Program Planning

The Energy efficiency measures for Washington low income programs will remain relatively the same with minor changes. The Company will continue in the same vein as 2017 implementation by reimbursing the Agencies the full cost of the measures that appear on the State Priority List as presented in the Washington State Department of Commerce Weatherization Manual, July 2017 edition. These

measures apply to both electric and natural gas heated homes and include attic, floor, wall insulation, air infiltration and LED lamps.

In addition, the Company will reimburse agencies the full cost for the conversion of electric heated homes to a natural gas forced air furnace. When natural gas is not an option the Company will cover the conversion of a straight resistant electric heating system to either an air source or ductless heat pump system.

Measures that are not cost effective will be reimbursed at the amount of the Company's avoided cost of energy savings.

Agencies are encouraged to work with the Company when considering the installation of energy efficiency opportunities that are not found on either the Approved or the Rebate list.

Avista Program Manager: Renee Coelho

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

II. RESIDENTIAL PORTFOLIO

a. Residential ENERGY STAR Homes Program

General Program Description:

The Energy Star Home program leverages the regional and national effort surrounding Department of Energy and Environmental Protection Agency's Energy Star label. Avista and partnering member utilities of the Northwest Energy Efficiency Alliance (NEEA) have committed significant resources to develop and implement a program that sets standards, trains contractors and provides 3rd party verification of qualifying homes. NEEA in effect administers the program and Avista pays the rebate for homes that successfully make it through the process and are labeled Energy Star. Additionally, after the launch of NEEA's regional effort, the manufactured homes industry established manufacturing standards and a labeling program to obtain Energy Star certified manufactured homes. While the two approaches are unique, they both offer 15-25% savings versus the baseline and offer comparable savings.

Program Implementation:

The Energy Star Home program promotes to builders and homeowners a sustainable, low operating cost, environmentally friendly structure as an alternative to traditional home construction. In Washington, Avista offers both electric and natural gas energy efficiency programs and as a result structures the program to account for homes where either a single fuel or both fuels are utilized for space and water heating needs. The Company continues to support the regional program to encourage sustainable building practices.

The current customer descriptions of the programs with primary program requirements are available on the ENERGY STAR®/ECO-Rated Homes Rebate form.

Program Eligibility and incentives:

Any Washington and Idaho residential electric customer (Schedule 1) with a certified Energy Star Home or Energy Star/ECO-Rated Manufactured Home that is all electric is eligible. Any Washington residential electric customer (Schedule 1) with a certified Energy Star Home that has Avista electric for lights and appliances and Avista residential natural gas (Schedule 101) for space and water heating is eligible. Note for 2018, stick built Energy star homes with electric heating did not pass the TRC cost effectives test and were removed for this biennia.

Revised Rebates for 2018:

Energy Star/ECORated Home, Manufactured $1,000
Energy Star/ECORated Home, Natural Gas Only $650

A certified Energy Star Home with Avista electric or both Avista electric and natural gas service provides energy savings beyond code requirements for space heating, water heating, shell, lighting and appliances. Space heating equipment can be either electric forced air or electric heat pump in Washington and Idaho; or a natural gas furnace in Washington. This rebate may not be combined with other Avista individual measure rebate offers (e.g.: high efficiency water heaters).

Avista Program Manager: David Schafer

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

b. Residential HVAC Program

General Program Description:

The HVAC program encourages residential customers to select a high efficiency solution when making energy upgrades to their home. This prescriptive rebate approach issues payment to the customer after the measure has been installed. DSM marketing efforts build considerable awareness of opportunities in the home and drive customers to the website for rebate information. Vendors generate participants in the program as they use the rebate as a sales tool for their services. Utility website promotion, vendor training, retail location visits and presentations at various customer events throughout the year are some of the other communication methods that encourage program participation.

Overall, residential customers continue to respond well to the program. High efficiency natural gas furnace provides the largest portion of the gas savings for the residential portfolio.

Program Eligibility and incentives:

Washington electric customers (Schedule 1) who heat their homes with Avista electric may be eligible for a rebate for the installation of a variable speed motor on their forced air heating equipment or for converting their electric straight resistance space heat to an air source heat pump. Any Washington residential natural gas customers (Schedule 101) who heat their homes with natural gas may be eligible for a rebate for the installation of a high efficiency natural gas furnace or boiler.

Revised Rebates for 2018:

Variable speed motor $80
Electric to Air Source Heat Pump $700
Electric to Ductless Heat Pump $500
High efficiency natural gas furnace $300
High efficiency natural gas boiler $300
Heat Pump Water Heater $200
Tankless Water Heater $175
Smart Thermostat $75 (contractor install)
Smart Thermostat $60 (self-install)

Avista will review energy usage as part of the program eligibility requirements; customer must demonstrate a heating season electricity usage of 8,000 kWh and less than 340 therms for replacement of electric straight resistance to air source heat pump and ductless heat pump. High efficiency natural gas furnaces and boilers must have an Annual Fuel Utilization Efficiency (AFUE) of 90% or greater. Tankless water heaters must have an efficiency of .82 EF or higher. Ductless heat pumps must be 9.0 HSPF or greater. Heat pump water heaters must have an efficiency of 180% or higher. Supporting documentation required for participation includes but may not be limited to: copies of project invoices and AHRI certification.

Avista Program Manager: David Schafer

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

c. Residential Shell Program

General Program Description:

The shell program encourages residential customers to improve their home's shell or exterior envelope with upgrades to windows and storm windows. This prescriptive rebate approach issues payment to the customer after the measure has been installed. DSM marketing efforts build considerable awareness of opportunities in the home and drive customers to the website for rebate information. Vendors generate participants in the program as they use the rebate as a sales tool for their services. Utility website promotion, vendor training, retail location visits and presentations at various customer

events throughout the year are some of the other communication methods that encourage program participation.

Program Implementation:

The estimates of unit throughput for 2018 remain consistent with throughput from 2017.

Program Eligibility and incentives:

Washington and Idaho residential electric customers (Schedule 1) who heat their homes with Avista electric are eligible to apply. Washington residential natural gas customers (Schedule 101) who heat their homes with natural gas are also eligible to apply.

Revised Rebates for 2018:

Storm Windows $1.00/sq. ft
Windows $1.50/sq. ft

Storm windows (interior/exterior) must be new, the same size as existing window, not in direct contact with existing window, and exterior windows low-e coating must be facing the interior of the home. Glazing material emissivity must be less than .22 with a solar transmittance greater than .55.

Windows must have a u-factor rating of .30 or lower.

Avista will review energy usage as part of the program eligibility requirements. Customers in Washington and Idaho with electric heated homes must demonstrate a heating season usage of 8,000 kWh. Customers in Washington with natural gas heated homes must demonstrate a heating season usage of 340 therms.

Avista Program Manager: David Schafer

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

d. Residential Fuel Efficiency Program

General Program Description:
The fuel efficiency rebate encourages customers to consider converting their resistive electric space and water heat to natural gas. The direct use of natural gas continues to be the most efficient fuel choice when available, and over time offers the most economic value in the operating costs of the equipment. Since the early 1990's the Company has offered a conversion rebate. While natural gas prices have fallen in recent years, the cost of infrastructure continues to rise, both for the utility and for the customer's installation cost for this particular measure. In the fall of 2014, the Company requested and received approval from both commissions to increase the rebate level available for fuel efficiency projects by allowing these measures to receive the same cents/kWh as all other electric efficiency

improvements under Tariff Schedule 90. For the 2018-2019 biennium, conversions to natural gas water heaters no longer have a stand alone rebate. For this biennium, the Company will incentivize water heaters as a combination rebate with conversions to natural gas furnaces.

Program Implementation:

This is a prescriptive rebate that is paid upon installation and receipt of all relevant documentation. Customer's minimum qualifications include using Avista electricity for electric straight resistance heating and/or water heating purposes which is verified by evaluating their energy use. DSM marketing efforts build considerable awareness of opportunities in the home and drive customers to the website for rebate information. Vendors generate participants in the program as they use the rebate as a sales tool for their services. Utility website promotion, vendor training, retail location visits and presentations at various customer events throughout the year are some of the other communication methods that encourage program participation.

Program Eligibility and incentives:

Residential electric customers (Schedule 1) in Idaho and Washington who heat their homes or hot water with Avista electricity may be eligible for a rebate for the conversion to natural gas. The home's electric baseboard or furnace heat consumption must indicate a use of 8,000 kWh or more during the previous heating season (and less than 340 therms).

Revised Rebates for 2018:

Electric to natural gas furnace $2,000
Electric to Natural Gas furnace and Water Heater $2,750
Electric to Natural Gas Direct Vent Wall Heat $1,300

Avista Program Manager: David Schafer

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

e. Simple Steps, Smart Savings

General Program Description:

Avista collaborates with BPA on Simple Step, Smart Savings, a regional program designed to increase the adoption of energy-efficient residential products. To achieve energy savings, residential consumers are encouraged to purchase and install high-quality, light emitting diode bulbs (LEDs), light fixtures, energy-saving showerheads as well as ENERGY STAR appliances.

Simple Steps continues to provide the region's best opportunity to collectively influence both retail stocking practices and consumer purchasing. There continues to be opportunities for efficient lighting

improvements in customer residences as many residential lighting sockets are still occupied by inefficient bulbs. Incentives also encourage customers to increase efficiency before burn-out of the existing less-efficient lighting. Energy savings claimed are based on Regional Technical Forum (RTF) deemed savings.

Program Implementation:
The key drivers to delivering on the objectives of this program are the incentives to encourage customer interest and marketing efforts to drive customers to using the program. The upstream model used for lighting and showerheads uses manufacturer partnership to buy-down costs of products and allow for greater flexibility on how money is used (markdowns and/or marketing).

CLEAResult is contracted by Avista Utilities to provide the manufacturer and retail coordination. They are responsible for coordinating program marketing efforts, performing outreach to retailers, ensuring that the proper program tracking is in place and coordinating all implementation aspects of the program. Big box retailers in addition to select regional and national mass-market chains are the primary recipient of the product and typically offer a variety of the Simple Steps products at their locations. These products are clearly identified with point of purchase tags indicating they are part of the program.

Products included in program:
LED Bulbs such as General Purpose, Dimmable, Decorative, Mini-Base, Globe, Reflectors, Outdoor and Three- Way ENERGY STAR® LED Fixtures, and Showerheads with 2.0 GPM, 1.75 GPM, 1.5 GPM ratings.

Program Eligibility and incentives:
The program is applicable to existing Washington and Idaho residential customers with electric rate schedule 1 and Washington residential customers with rate schedule 101 who heat their hot water with natural gas. Simple Steps Smart Savings is available at retail locations with allocations amongst participating utilities based on estimated percent of customers shopping at specific locations.

Key external stakeholders include homeowners, landlords (and renters), retailers and trade allies. Key internal stakeholders include the contact center, accounts payable and marketing department.

Average Incentive per unit:
LED Bulb: $2.00 - $1.50
ENERGY STAR® LED Fixtures: $5.00
Showerhead: $4.50

Avista Program Manager: Rachelle Humphrey

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

III. NON-RESIDENTIAL PORTFOLIO

a. Non-Residential Prescriptive Lighting Program

General Program Description:
This program is intended to prompt commercial electric customers to increase the energy-efficiency of their lighting equipment through direct financial incentives. It indirectly supports the infrastructure and inventory necessary to ensure that the installation of high-efficiency equipment is a viable option for the customer.

There is significant opportunity for lighting improvements in commercial facilities. Avista has been offering site specific incentives for qualified lighting projects for many years. In an effort to streamline the process and make it easier for customers and vendors to participate in the program we developed a prescriptive approach, which began in 2004. This program provides for many common retrofits to receive a pre-determined incentive amount. Incentive amounts were calculated using a baseline average for existing wattages and replacement wattages. Energy savings claimed are calculated based on actual customer run times using the averages as calculated for incentive amounts.

The prescriptive lighting program makes it easier for customers, especially smaller customers and vendors, to participate in the program. We have seen a substantial increase in the number of projects that have been completed since this approach was instituted. The measures included in the Prescriptive Lighting Program include T12/T8, HID, MR16 and incandescent retrofits to more energy efficient light sources including T5 and T8 LEDs.

Program Implementation:
The key drivers to delivering on the objectives of this program are the direct incentives to encourage customer interest, marketing efforts to drive customers to the program and ongoing work with trade allies to ensure that customer demand can be met.

Key to the success of this program is clear communication to lighting supply houses, distributors, electricians and customers on incentive requirements and forms. The Avista website is also a channel to communicate program requirements and highlight opportunities for customers. Avista's regionally based Account Executives (AEs) are a key part of delivering the Prescriptive Lighting Program to commercial and industrial customers. Any changes typically include advance notice of 90 days to submit under the old requirements and/or incentive levels. This usually includes at a minimum, direct mail communication to trade allies as well as internal forms and website updates.

Program Eligibility:
This program is applicable to commercial or industrial facilities with electric service provided by Avista with rate schedules 11 or above.

Avista Program Manager: Rachelle Humphrey

Key Avista Support Staff: Lorri Kirstein, Tom Lienhard, Colette Bottinelli

Measures and Incentives: As Illustrated in Table 1 of Appendix A

Evaluation Measurement and Verification Plan: As defined within Avista's EM&V Plan contained in Appendix B.

b. Non-Residential HVAC Program

General Program Description:
Installing energy efficient heating equipment will reduce a customer's operating costs and save energy. This program offers direct incentives for installing high efficient natural gas HVAC equipment. The HVAC program encourages customers to select a high efficiency solution when making energy upgrades to their businesses. This prescriptive rebate approach issues payment to the customer after the measure has been installed. Eligibility guidelines for participation include but may not be limited to: confirmation of natural gas space heating usage, copies of project invoices and AHRI documentation. This program is applicable to non-residential customers in Washington with Avista natural gas as their primary heat source who install qualified new natural gas equipment.

Program Implementation:
This is a prescriptive program with six measures being offered. Customers must return to Avista a completed rebate form, invoices and an AHRI certificate within 90 days after the installation has been completed. Avista will send an incentive check to the customer (or their designee) generally within six to eight weeks. Rebates will not exceed the total amount on the customer invoice. Each rebate will be qualified and processed with the current commercial natural gas HVAC calculator to determine the savings and incentive. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

c. Non-Residential Site-Specific Program

General Program Description:
The site specific program is a major component in our commercial/industrial portfolio. Customers receive technical assistance and incentives in accordance with Schedule 90 and Schedule 190 in. Our program approach strives for a flexible response to energy efficiency projects that have demonstrable kWh/Therm savings within program criteria. The majority of site specific kWh/Therm savings are comprised of custom lighting projects that don't fit the prescriptive path, appliances, compressed air, HVAC, industrial process, motors, shell measures and natural gas multifamily market transformation.

This program is available to all non-residential retail electric customers in Washington and Idaho and natural gas customers in Washington. The site specific program typically brings in the largest portion of savings to the overall energy efficiency portfolio.

Program Implementation:

This program will offer an incentive for any qualifying electric or gas energy saving measure that has a simple payback under 15 years

The incentive is capped at seventy percent for all of the customer incremental cost. The key drivers to delivering on the objectives of the program are the direct incentives to encourage customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

The Company initiated a market transformation program intended to increase the availability of natural gas space and water heating in multi-family residential developments. The focus is on new construction multi-family residential rentals, larger than a 5-plex. The goal of the program is to address the split incentive issue where developers are focused on first costs that drive poor, lost opportunity heating choices and tenants who have to pay those heating costs without sufficient choices in the rental market to demonstrate. Natural gas presents a preferred option with less expense and societal benefit of the direct use of natural gas. The program intends to create developer confidence in both the natural gas heating design for multi-family as well as understanding the added long term value. Similarly the program assists potential tenants who otherwise have no control and limited options in the market to influence their heating fuel and better manage their heating costs.

The launch of this program several years ago coincided with a substantial reduction in multi-family new construction starts due to the failing economy. While the Company has had success with a couple of local builders, the majority indicate the incremental costs continue to remain higher than the $2,000 incentive offered. Initial incremental costs were primarily focused on estimates of the difference in natural gas equipment compared to electric baseboard along with estimates for additional equipment, timing/coordination, labor and carrying costs associated with penetrating building envelopes. In multifamily construction natural gas related installations and inspections can add up to 25% to the build time. Builders have also expressed concern with the possibility of the program not being available after the expense has been made to convert their designs to natural gas.

With construction activity revitalized in the past year the program has been modified and continues to be offered for a minimum of two years at a higher incentive amount of $3,500. Builders will continue to have two years to complete the construction of the project once contracted and will continue to provide documentation of their plans and incremental costs associated with installing natural gas over the electric straight resistance baseline. The program will be monitored for activity based on the number of units contracted through 2017 with the incentive amount to be evaluated for reduction or discontinuation.

In summary the new market transformation incentive levels for installing natural gas equipment over baseline electric straight resistance would be up to $3,500 per unit for installation of natural gas space and/or water heating improvements.

Avista Program Manager: Lorri Kirstein, Tom Lienhard, site-specific engineering, Renee Coelho, multifamily market transformation.

Measures, Incentives and Budget: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

d. Non-Residential Prescriptive Shell Program

General Program Description:
The Commercial Insulation program encourages non-residential customers to improve the envelope of their building by adding insulation. This may make a business more energy efficient and comfortable. This prescriptive rebate approach issues payments to the customer after the measure has been installed. Eligibility guidelines for participation include, but may not be limited to: confirmation of electric or natural gas heating usage, invoices and insulation certificate. Pre and/or post inspection for insulation may occur as necessary throughout the year. The program offers incentives to non-residential (Schedule 11, 21, 25) customers who have an electric primary heat source or a non-residential (Schedule 101, 111 121) natural gas primary heat source provided by Avista in Washington who install qualified insulation measures in their business are eligible to apply for this program.

Program Implementation:
All customer-facing aspects of this program are prescriptive based. Customers must return to Avista a completed rebate form within 90 days after the installation has been completed. Avista will send an incentive check to the customer (or their designee) generally within six to eight weeks. Rebates will not exceed the total amount on the customer invoice. Each rebate will be qualified and processed with the current commercial insulation calculator to determine the savings and incentive. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

e. Non-Residential Prescriptive VFD Program

General Program Description:

This program is intended to prompt the customer to increase the energy efficiency of their fan or pump applications with variable frequency drives through direct financial incentives. This prescriptive rebate approach issues payments to the customer after the measure has been installed. Eligibility guidelines for participation include, but may not be limited to: confirmation of electric usage, invoices and verification of HP of motor. Any non-residential (Schedule 11, 21, 25) Avista electric customer installing qualified equipment is eligible for this program.

Program Implementation:
All customer-facing aspects of this program are prescriptively based. Customers must return to Avista a completed rebate form within 90 days after the installation has been completed. Avista will send an incentive check to the customer (or their designee) generally within six to eight weeks. Rebates will not exceed the total amount on the customer invoice. Each rebate will be qualified and processed with the current commercial HVAC Variable Frequency Drive Retrofit calculator to determine the savings and incentive. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

f. Non-Residential Food Service Equipment Program

General Program Description:
This program offers incentives for commercial customers who purchase or replace food service equipment with Energy Star or higher equipment. This equipment helps them save money on energy costs. This prescriptive rebate approach issues payments to the customer after the measure has been installed. Eligibility guidelines for participation include, but may not be limited to: confirmation of electric or natural gas usage, invoices and equipment data. Any non-residential (Schedule 11, 21, 25) Avista electric customer and any non-residential (Schedule 101,111, 121) Avista natural gas customer in Washington installing qualifying equipment is eligible for this program.

Program Implementation:
All customer-facing aspects of this program are prescriptively based. Customers must return to Avista a completed rebate form within 90 days after the installation has been completed. Avista will send an incentive check to the customer (or their designee) generally within six to eight weeks. Rebates will not exceed the total amount on the customer invoice. Each rebate will be qualified and processed with

the current EnergyStar Commercial Kitchen calculator to determine the savings. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

g. Non-Residential Green Motors Program

General Program Description:
The Green Motors Initiative is to organize, identify, educate, and promote member motor service centers to commit to energy saving shop rewind practices, continuous energy improvement and motor driven system efficiency. Green Motors Program Group launched the Green Motors Initiative in 2008 to work with northwest regional utilities and other sponsoring organizations to provide incentives, through GMPG's member motor centers, for qualifying motors meeting the GMPG's standards. Avista joined this effort in offering the program to electric customers who participate in the green rewind program from 15 HP (horsepower) to 5,000 HP industrial motors. This program provides an opportunity for Avista customers to participate in a regional effort. Without this program, this market is difficult for us to reach as a local utility. Any commercial (Schedule 11, 21, 25, 31) Avista electric customer that does a qualified green motors rewind is eligible for this program. Incentives are paid as a credit off the invoice at the time of the rewind. A $1 per HP incentive goes to the customer and a $1 per HP incentive is paid to the service center.

Program Implementation:
The Green Motors Initiative is a third party program that handles the measures from inception to rebate payment. There is an admin fee based on the kWh savings for Green Motors Partners. The incentive is split between the service center and the customer. The customer receives their incentive as an immediate discount off their bill. The DSM Program Management team oversees the contract, monitors the program and does input for savings and incentive information. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

h. Non-Residential AirGuardian Program

General Program Description:
The AirGuardian program is a third party delivered turnkey program for direct install compressed air and facility efficiency. The program will target compressed air users in Avista's Washington service territory. The direct install will be a compressed air leak reduction device which will generate energy savings by reducing the impact of compressed air leaks during off hour periods. While on site, a leak detection audit will also be conducted. Any commercial (Schedule 11, 21, 25) Avista electric customer installing qualified equipment is eligible for this program.

Program Implementation:
The AirGuardian program will be turnkey delivered by Sight Energy Group LLC. The target market for the direct installation of AirGuardian devices are small and medium sized businesses using rotary screw compressors of at least 15 HP. We anticipate participants to be machine shops, tire and auto body shops, small manufacturers and others using compressed air for production and tools. These facilities represent a prime opportunity for implementation of other energy efficiency measures too. The account executives are also providing customer referrals with permission from the customers. This program is available to all non-residential retail electric customers with compressed air. The DSM Program Management team monitors the contract, inputs the monthly results and runs analysis on program measures. Account executives drive customers to the program. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: *As illustrated in Table 1 of Appendix* A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

i. Non-Residential Fleet Heat Program

General Program Description:
Vehicle fleet operators use heating devices to heat vehicle engine blocks in cold weather. Maintaining the block temperature eases starting, reduces internal wear, and minimizes fuel consumption due to idle warm up time. Typically block heaters use 110 Volt single phase resistive elements, with no on-board controls. Heating operation is dependent solely on either the driver or fleet maintenance staff to energize the heaters as needed. In the Inland Northwest it appears many fleet operators energize vehicle heaters between October 31st and April 1st whenever the vehicle is off-shift. This 24 hour 7 day a week operation prevents freeze up and hard starting conditions, but may incur extra energy consumption and costs heating the engine block in conditions when heating is not needed. There is currently a technology available that adds logic and sensor points to control heater operation. This technology, called a thermocord, adds the ability to sense and measure block coolant temperature and ambient Outside Air Temperature (OAT). With this information the heater will only be energized when the OAT drops below a temperature set-point and the engine mounted thermostat is calling for heat.

Any commercial (Schedule 11, 21, 25) Avista electric customer installing qualified equipment is eligible for this program.

Program Implementation:
The process for the program is that Avista will have customers fill out an order/rebate form with the specifics of their fleet vehicles. When that form is submitted to Avista, we will record that information and pass the form on to the vendor for processing. Avista will pay the vendor for the cost of the thermocord and the vendor will deliver the product directly to the customer. The customer will be responsible for installation. The vendor will notify Avista when the product has been delivered and Avista will perform an installation verification within 30 days of install. The key drivers to delivering on the objectives of the program are the direct incentives to fuel customer interest, marketing efforts and account executives to drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

j. Non-Residential EnergySmart Grocer Program

General Program Description:
This program is intended to prompt the customer to increase the energy efficiency of their refrigerated cases and related grocery equipment through direct financial incentives. The EnergySmart Program was launched in late 2007 and is delivered by a 3rd party contractor, facilitated through CLEAResult. A Field Energy Analyst with expertise in commercial refrigeration provides customers with a no cost audit of the refrigeration in their facility. The customer receives a detailed energy savings report regarding potential savings and is guided through the process from inception through the payment of incentives for qualifying equipment. CLEAResult utilizes a modeling program called Grocer Smart to determine savings. In addition to the potential savings that will be achieved through the measures implemented, customers receive technical assistance and comprehensive audits at no charge. Refrigeration often represents the primary electricity expense in a grocery store or supermarket. Although the potential for savings is high, it is often overlooked because of the technical aspect of the equipment. This program provides a concentrated effort to assist customers through the technical aspects of their refrigeration systems while providing a clear view of what savings can be achieved. Measures are continually looked at to make sure they are cost effective and new measures are considered as they become available. Any commercial (Schedule 11, 21, 25) Avista electric customer installing qualified equipment is eligible for this program.

Program Implementation:

CLEAResult is handling the outreach effort through industry contacts, cold calling and contractor relationships. The account executives are also providing customer referrals with permission from the customers. This program is available to all non-residential retail electric customers with refrigeration facilities. Incentives are offered as a result of the facility audit report for potential savings. CLEAResult guides this process from inception through the payment of the incentives. The DSM Program Management team monitors the contract, program, evaluates new and existing measures, inputs the monthly results and runs analysis on program measures. Account executives drive customers to the program. The Avista Website is also used to communicate program requirements, incentives and forms.

Avista Program Manager: Greta Zink

Measures and Incentives: As illustrated in Table 1 of Appendix A.

Evaluation, Measurement and Verification Plan: As defined within the Company's EM&V Plan contained within Appendix B.

IV. Table 1: Measure level summary of unit throughput, incentives and cost-effectiveness

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
Washington Air Guardian	Air Guardian	7	$ 1,440.00	1.90	1.90
LT Case: T12 to LP LED Inside Lamp	Energy Smart Grocer	77	$ 10.00	2.66	3.99
MT Case: T12 to LP LED Inside Lamp	Energy Smart Grocer	77	$ 10.00	1.92	2.89
MT Case: T8 to LED Inside Lamp	Energy Smart Grocer	700	$ 10.00	1.14	1.71
LT Case: T8 to LP LED Inside Lamp	Energy Smart Grocer	105	$ 10.00	1.57	2.35
T12 to LP LED Outside Lamp	Energy Smart Grocer	350	$ 7.00	1.40	3.00
T8 to LP LED Outside Lamp	Energy Smart Grocer	1,400	$ 7.00	0.83	1.78
Anti-Sweat Heater Controls - Low Temp	Energy Smart Grocer	263	$ 40.00	3.48	4.17
Anti-Sweat Heater Controls - Med Temp	Energy Smart Grocer	350	$ 40.00	2.48	2.96
Gaskets for Low Temp Reach-in Glass Doors	Energy Smart Grocer	70	$ 40.00	0.35	0.96
Gaskets for Medium Temp Reach-in Glass Doors	Energy Smart Grocer	25	$ 25.00	0.44	1.57
Gaskets for Walk-in Freezer - Main Door	Energy Smart Grocer	18	$ 65.00	0.44	0.84

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
Gaskets for Walk-in Cooler - Main	Energy Smart Grocer	18	$ 25.00	0.38	1.29
Evap motors: shaded pole to ECM in Walk-in - Greater than 23 watts	Energy Smart Grocer	263	$ 140.00	3.44	7.07
Evap motors: shaded pole to ECM in Walk-in - less than 23 watts	Energy Smart Grocer	35	$ 140.00	1.40	2.87
Evap motors: shaded pole to ECM in Display Case	Energy Smart Grocer	88	$ 55.00	1.40	7.31
Floating Head Pressure for Single Compressor Systems, LT Condensing Unit	Energy Smart Grocer	-	$ 100.00	1.89	5.80
Floating Head Pressure for Single Compressor Systems, LT Remote Condenser	Energy Smart Grocer	-	$ 100.00	2.85	4.65
Floating Head Pressure for Single Compressor Systems, MT Condensing Unit	Energy Smart Grocer	-	$ 100.00	1.27	5.14
Floating Head Pressure for Single Compressor Systems, MT Remote Condenser	Energy Smart Grocer	-	$ 100.00	1.50	3.21
Evaporated Fan - Walk-In ECM Controller - Low Temp - 1/10-1/20 HP	Energy Smart Grocer	-	$ 35.00	0.93	4.32
Evaporated Fan - Walk-In ECM Controller - Medium Temp - 1/10-1/20 HP	Energy Smart Grocer	-	$ 35.00	0.78	5.51
Strip Curtains for Convenience Store Walk-in Freezers	Energy Smart Grocer	-	$ 5.00	0.17	0.35
Strip Curtains for Restaurant Walk-in Freezers	Energy Smart Grocer	-	$ 5.00	0.73	1.48
Strip Curtains for Supermarket Walk-in Coolers	Energy Smart Grocer	245	$ 5.00	0.69	1.41
Strip Curtains for Supermarket Walk-in Freezers	Energy Smart Grocer	210	$ 5.00	3.02	6.12
Add doors to Open Medium Temp Cases	Energy Smart Grocer	298	$ 253.60	2.24	3.40
Cases - Low Temp Coffin to High Efficiency Reach-in	Energy Smart Grocer	-	$ 214.80	8.68	3.39
Cases - Low Temp Open to Reach-in	Energy Smart Grocer	-	$ 334.80	4.02	3.39
Cases - Low Temp Reach-in to High Efficiency Reach-in	Energy Smart Grocer	70	$ 192.60	2.31	3.39
Cases - Medium Temp Open Case to New High Efficiency Open Case	Energy Smart Grocer	-	$ 44.40	1.70	3.39
Cases - Medium Temp Open Case to New Reach In	Energy Smart Grocer	140	$ 117.00	4.49	3.39
Special Doors with Low/No ASH for Low Temperature Reach-in	Energy Smart Grocer	-	$ 340.00	13.05	3.39

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
Advanced Floating Controls: Floating Head and Suction Pressure with Balanced Port Valves	Energy Smart Grocer	-	$ 47.68	0.40	3.39
Advanced Floating Controls: Floating Head and Suction Pressure with Electronic Expansion Valves (EEXVs)	Energy Smart Grocer	-	$ 135.36	1.14	3.39
Advanced Floating Controls: Increase Suction Temperature with Electronic Expansion Valves (EEXVs)	Energy Smart Grocer	-	$ 40.72	0.34	3.39
Efficient Compressors - Low Temperature	Energy Smart Grocer	-	$ 159.60	1.88	3.39
Floating Head Pressure Control - Air Cooled	Energy Smart Grocer	7	$ 66.40	4.35	3.39
Floating Head Pressure Control - Evap Cooled	Energy Smart Grocer	7	$ 141.60	9.27	3.39
Floating Head Pressure Control w/ VFD- Air Cooled	Energy Smart Grocer	7	$ 183.00	3.11	3.39
Multiplex - Compressors - Air-cooled Condenser	Energy Smart Grocer	-	$ 393.60	2.59	3.39
Multiplex - Compressors - Evaporative Condenser	Energy Smart Grocer	-	$ 393.60	2.59	3.39
Multiplex - Controls - Floating suction pressure - air cooled condenser	Energy Smart Grocer	-	$ 45.40	1.44	3.39
Multiplex - Controls - Floating suction pressure - evaporative condenser	Energy Smart Grocer	-	$ 46.20	1.47	3.39
Multiplex - Efficient/oversized Air-cooled Condenser for Multiplex	Energy Smart Grocer	-	$ 412.20	13.10	3.39
Multiplex - Efficient/oversized Water-cooled Condenser for Multiplex	Energy Smart Grocer	-	$ 310.00	9.85	3.39
VFD - Condenser Fan Motors - Air Cooled	Energy Smart Grocer	35	$ 186.00	3.30	3.39
VFD - Condenser Fan Motors - Evap Cooled	Energy Smart Grocer	35	$ 186.00	3.30	3.39
70-89 watt HID Fixture =< 25 watt LED Fixture	Exterior Lighting	61	$ 60.00	1.49	3.11
90 - 100 W HID to 25-30W LED Fixture	Exterior Lighting	61	$ 80.00	1.65	3.02
150 W HID to 30-50W LED Fixture	Exterior Lighting	92	$ 125.00	2.16	2.98
175 W HID to 30-79W LED Fixture	Exterior Lighting	183	$ 130.00	2.28	2.97
250 W HID to 80-140W LED Fixture	Exterior Lighting	92	$ 140.00	1.29	2.95
320 W HID to 100-160W LED Fixture	Exterior Lighting	31	$ 180.00	1.40	2.89

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
400 W HID to 100-175W LED Fixture	Exterior Lighting	305	$ 255.00	1.84	2.92
250 watt HID New Construction Fixture =< 99 watt LED Fixture	Exterior Lighting	92	$ 140.00	1.29	2.95
175 watt HID New Construction Fixture to =< 79 watt LED Fixture	Exterior Lighting	31	$ 130.00	3.62	2.97
320 & 400 watt HID New Construction Fixture =< 175 watt LED Fixture	Exterior Lighting	175	$ 250.00	1.84	2.98
1000W HID to 300W-400W LED	Exterior Lighting	183	$ 610.00	1.57	2.91
Sign Lighting LED	Exterior Lighting	7,500	$ 17.00	11.77	3.49
Washington Fleet Heat	Fleet Heat	4	$ 520.50	8.40	8.40
0.61 to 0.80 GPM electric pre-rinse sprayer	Food	1	$ 25.00	7.98	5.64
3 pan electric steamer	Food	1	$ 70.00	24.88	124.03
4 pan electric steamer	Food	1	$ 100.00	76.38	115.51
5 pan electric steamer	Food	1	$ 135.00	81.84	106.82
6 pan electric steamer	Food	0	$ 160.00	88.23	108.06
10 or larger pan electric steamer	Food	-	$ 180.00	10.20	160.26
Efficient combination oven (>= 16 pan and <= 20 pan) electric	Food	2	$ 1,000.00	5.94	8.08
Efficient combination oven (>= 6 pan and <= 15 pan) electric	Food	2	$ 1,000.00	20.86	5.87
Efficient convection oven full size	Food	3	$ 225.00	0.96	3.34
Efficient convection oven half size	Food	3	$ 225.00	0.76	3.38
Efficient hot food holding cabinet, 1/2 size	Food	1	$ 165.00	0.73	1.42
Efficient hot food holding cabinet, full size	Food	1	$ 165.00	0.92	4.60
Electric fryer	Food	1	$ 300.00	1.15	2.91
Standard Efficiency Appliance to H.E. electric griddle, 70% effic. or better	Food	1	$ 505.00	0.89	1.77
High temp electric hot water dishwasher	Food	1	$ 650.00	5.28	3.46

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
Low temp electric hot water dishwasher	Food	1	$ 600.00	6.87	3.46
0.61 to 0.80 GPM gas pre-rinse sprayer	Food	-	$ 25.00	0.37	1.39
H.E. gas griddle, 40% effic. or better	Food	-	$ 88.00	0.88	4.91
High temp gas hot water dishwasher	Food	1	$ 350.00	0.69	1.44
Low temp gas hot water dishwasher	Food	1	$ 300.00	0.94	2.29
H.E. gas convection oven, 40% effic. or better	Food	-	$ 700.00	-	2.27
Efficient combination oven (>= 6 pan and <= 15 pan) gas	Food	-	$ 1,000.00	0.30	1.70
Efficient convection oven full size	Food	12	$ 700.00	0.33	2.71
Efficient combination oven (>= 16 pan and <= 20 pan) gas	Food	-	$ 1,000.00	0.37	2.11
Energy Star 50% effic.gas fryer	Food	74	$ 1,000.00	0.99	2.48
3 pan gas steamer	Food	1	$ 1,300.00	1.22	1.75
4 pan gas steamer	Food	1	$ 1,700.00	1.22	1.78
5 pan gas steamer	Food	1	$ 2,200.00	1.21	1.72
Gas rack oven	Food	-	$ 235.00	0.74	15.51
6 pan gas steamer	Food	1	$ 2,600.00	1.21	1.74
10 or larger pan gas steamer	Food	1	$ 3,200.00	2.75	3.69
15 HP Industrial	Green Motor	-	$ 30.00	1.39	6.88
20 HP Ind	Green Motor	-	$ 40.00	1.67	6.90
25 HP Ind	Green Motor	1	$ 50.00	1.91	7.23
30 HP Ind	Green Motor	2	$ 60.00	1.87	6.49
40 HP Ind	Green Motor	-	$ 80.00	1.78	5.66
50 HP Ind	Green Motor	-	$ 100.00	1.73	4.87
60 HP Ind	Green Motor	-	$ 120.00	1.73	4.80

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
75 HP Ind	Green Motor	2	$ 150.00	1.65	3.95
100 HP Ind	Green Motor	3	$ 200.00	1.76	3.91
125 HP Ind	Green Motor	-	$ 250.00	1.79	3.57
150 HP Ind	Green Motor	2	$ 300.00	1.91	3.54
200 HP Ind	Green Motor	4	$ 400.00	2.09	3.51
250 HP Ind	Green Motor	2	$ 500.00	2.25	3.88
300 HP Ind	Green Motor	-	$ 600.00	2.66	3.86
350 HP Ind	Green Motor	-	$ 700.00	2.96	3.86
400 HP Ind	Green Motor	-	$ 800.00	3.00	3.83
450 HP Ind	Green Motor	-	$ 900.00	3.08	3.82
4500 HP Ind	Green Motor	-	$ 9,000.00	3.80	3.49
500 HP Ind	Green Motor	-	$ 1,000.00	3.18	3.82
600 HP Ind	Green Motor	-	$ 1,200.00	2.48	3.67
700 HP Ind	Green Motor	2	$ 1,400.00	2.65	3.66
800 HP Ind	Green Motor	-	$ 1,600.00	2.72	3.65
900 HP Ind	Green Motor	-	$ 1,800.00	2.77	3.64
1000 HP Ind	Green Motor	-	$ 2,000.00	2.84	3.63
1250 HP Ind	Green Motor	-	$ 2,500.00	2.95	3.60
1500 HP Ind	Green Motor	-	$ 3,000.00	3.08	3.59
1750 HP Ind	Green Motor	-	$ 3,500.00	3.14	3.57
2000 HP Ind	Green Motor	-	$ 4,000.00	3.19	3.56
2250 HP Ind	Green Motor	-	$ 4,500.00	3.27	3.54
2500 HP Ind	Green Motor	-	$ 5,000.00	3.31	3.53

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
3000 HP Ind	Green Motor	-	$ 6,000.00	3.38	3.51
3500 HP Ind	Green Motor	-	$ 7,000.00	3.56	3.50
4000 HP Ind	Green Motor	-	$ 8,000.00	3.64	3.50
5000 HP Ind	Green Motor	-	$ 10,000.00	3.94	3.49
Gas Boiler <300kBtu .85-.89 AFUE	HVAC	881	$ 5.00	1.08	2.67
Gas Boiler <300kBtu .90+ AFUE AFUE	HVAC	2,206	$ 8.00	1.46	2.70
Singlestage Furnace <225 kBtu .90-.95 AFUE	HVAC	2,573	$ 4.50	3.25	4.80
Multistage Furnace <225 kBtu .90-.95 AFUE	HVAC	342	$ 6.00	3.21	4.61
Singlestage Furnace <225 kBtu .95+ AFUE	HVAC	2,736	$ 6.00	3.21	4.61
Multistage Furnace <225 kBtu .95+ AFUE	HVAC	1,320	$ 7.50	2.95	4.24
1000 watt HID =< 400 watt LED	Interior Lighting	511	$ 460.00	1.45	3.14
250 watt HID to =< 140 LED	Interior Lighting	937	$ 155.00	1.03	3.02
Over 150 watt Incandescent to 50-60W LED	Interior Lighting	145	$ 55.00	2.37	3.58
4-Lamp T12/T8 Fixture to 2-Lamp LED	Interior Lighting	2,469	$ 35.00	1.13	3.74
75-100 watt Incandescent to LED* 12-20 watt Fixture	Interior Lighting	230	$ 20.00	7.17	6.43
Occupancy sensors built in with relays for room control (not switch sensors)	Interior Lighting	94	$ 40.00	3.07	4.31
50 watt MR16 (GU10 Base) to MR16 LED 6-9 watt	Interior Lighting	230	$ 10.00	29.53	8.57
75-100 watt Incandescent to 12-20 watt LED lamp	Interior Lighting	1,703	$ 8.00	12.20	9.00
T5HO - T5 TLED	Interior Lighting	16,177	$ 15.00	1.40	3.34
3-Lamp T12/T8 Fixture to LED Qualified 2x4 Fixture	Interior Lighting	1,447	$ 29.00	1.08	3.39
40 watt Incandescent to 6-10 watt LED lamp	Interior Lighting	1,618	$ 8.00	9.75	6.43
60 watt Incandescent to 9-13 watt LED lamp	Interior Lighting	1,618	$ 8.00	11.60	6.43
20 watt MR16 (GU10 Base) to MR16 LED 2-4 watt	Interior Lighting	77	$ 10.00	11.22	3.43

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
T12/T8 to 8-20 W TLED	Interior Lighting	13,622	$ 6.50	1.22	2.27
35 watt MR16 (GU10 Base) to MR16 LED 4-6 watt	Interior Lighting	77	$ 10.00	19.53	2.57
400 watt HID =< 75 watt LED	Interior Lighting	1,447	$ 185.00	2.56	4.72
E ENERGY STAR DOORS	Low-Income	70	$ 1,013.40	1.62	1.00
E INS - CEIL/ATTIC	Low-Income	16,000	$ 1.35	0.69	1.00
E INS - DUCT	Low-Income	50	$ 6.70	7.63	7.63
E INS - FLOOR	Low-Income	50,000	$ 2.14	2.47	2.41
E INS - WALL	Low-Income	15,000	$ 2.20	2.07	2.07
E ENERGY STAR WINDOWS	Low-Income	70	$ 8.55	1.44	1.11
E HE AIR HPUMP	Low-Income	70	$ 4,172.89	1.10	1.10
Ductless HP (Average RTF of HZ2 & CZ 1-3)	Low-Income	40	$ 3,822.37	1.36	1.11
Tier1 0-55Gallon HPWH	Low-Income	40	$ 854.23	1.40	0.82
E ENERGY STAR REFRIGERATOR	Low-Income	70	$ 100.23	1.04	0.49
E AIR INFILTRATION	Low-Income	70	$ 730.00	1.00	0.74
Duct sealing	Low-Income	50	$ 608.58	2.84	2.84
G INS - CEIL/ATTIC	Low-Income	125,000	$ 2.14	0.16	0.16
G INS - WALL	Low-Income	35,360	$ 2.20	0.47	0.47
G INS - FLOOR	Low-Income	33,570	$ 2.14	0.57	0.57
G ENERGY STAR WINDOWS	Low-Income	11,405	$ 4.37	0.98	1.00
G INS - DUCT	Low-Income	653	$ 6.70	0.94	0.94
G HE WH 50G	Low-Income	10	$ 37.05	1.02	1.00
G PROG TSTAT NO AC	Low-Income	25	$ 46.66	0.16	1.00
G PROG TSTAT W/AC	Low-Income	25	$ 46.66	0.16	1.00

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
G ENERGY STAR DOORS	Low-Income	50	$ 193.43	0.88	1.00
G AIR INFILTRATION	Low-Income	70	$ 730.00	0.22	0.20
G duct sealing	Low-Income	25	$ 429.85	0.71	1.00
G HE FURNACE	Low-Income	5	$ 698.00	2.05	1.05
Multifamily NG Market Transformation (per unit)	MFMT	618	$ 3,500.00	1.01	1.24
ELEC WINDOWS SP/MDP --> <0.30 U	Residential	3,400	$ 1.44	1.89	26.76
Web Tstat Elec DIY	Residential	20	$ 60.00	2.87	11.49
Web Tstat Elec Cont	Residential	40	$ 75.00	2.34	9.19
ELEC RESISTANCE TO ASHP	Residential	57	$ 700.00	1.61	9.58
VARIABLE SPEED MOTOR ASHP	Residential	200	$ 80.00	2.01	6.91
VARIABLE SPEED MOTOR FURNACE	Residential	500	$ 80.00	1.90	6.52
E ESTAR HOME - MANUF, ELEC/DF	Residential	8	$ 1,000.00	2.45	5.34
Tier2 0-55Gallon HPWH	Residential	17	$ 200.00	1.06	4.94
Tier3 0-55Gallon HPWH	Residential	17	$ 200.00	1.12	5.23
Tier1 0-55Gallon HPWH	Residential	17	$ 200.00	0.87	3.68
Ductless Heat Pump	Residential	80	$ 500.00	1.36	8.52
NG Storm Windows	Residential	7,500	$ 1.00	0.31	3.11
G Windows Single Pane <0.30 U-value	Residential	80,000	$ 1.50	1.44	19.65
Web Tstat Gas DIY	Residential	300	$ 60.00	0.64	2.57
Web Tstat Gas Cont	Residential	600	$ 75.00	0.52	2.06
TANKLESS WH (0.82+)	Residential	150	$ 175.00	0.97	2.49
NG FURNACE/BOILER 90% AFUE	Residential	2,800	$ 300.00	1.37	3.11
E STAR HOME - GAS ONLY	Residential	18	$ 600.00	0.74	3.72

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
E --> NG Space and DHW	Residential Conversions	793	$ 2,750.00	1.83	4.47
E --> NG DIRECT VENT WALL HEAT	Residential Conversions	29	$ 1,300.00	1.23	4.24
ELEC RES --> CENTRAL NG	Residential Conversions	433	$ 2,000.00	2.16	4.74
Less than R11 attic insulation (E/G) to R30-R44 Attic Insulation	Shell	10,000	$ 0.20	1.27	4.81
Less than R11 roof insulation (E/G) to R30+ Roof Insulation	Shell	17,500	$ 0.25	2.08	5.16
Less than R11 attic insulation (E/G) to R45+ Attic Insulation	Shell	10,000	$ 0.25	1.62	5.56
Less than R4 wall insulation (E/G) to R11-R18 Wall Insulation	Shell	27,500	$ 0.40	4.24	6.47
Less than R4 wall insulation (E/G) to R19+ Wall Insulation	Shell	27,500	$ 0.45	5.95	8.60
LED - Decorative and Mini-Base - 250- 1049 lumens	Simple Steps	38,764	$ 1.50	3.38	6.36
LED - General Purpose and Dimmable - 1490 - 2600 lumens	Simple Steps	35,163	$ 1.00	2.17	8.07
LED - General Purpose and Dimmable - 250- 1049 lumens	Simple Steps	431,764	$ 1.00	6.22	7.34
LED - General Purpose and Dimmable - 1050 - 1489 lumens	Simple Steps	9,164	$ 1.00	3.06	13.21
LED - Globe - 250- 1049 lumens	Simple Steps	9,356	$ 1.00	3.30	8.80
LED - Reflectors and Outdoor - 1490- 2600 lumens	Simple Steps	801	$ 2.00	10.08	26.41
LED - Reflectors and Outdoor - 250 - 1049 lumens	Simple Steps	205,818	$ 2.00	16.93	8.80
LED - Reflectors and Outdoor - 1050 - 1489 lumens	Simple Steps	12,987	$ 2.00	4.52	7.70
LED - Decorative Ceiling Flush Mount Fixture - 500-1999 lumens	Simple Steps	4,172	$ 1.50	8.37	11.13
LED - Decorative Ceiling Flush Mount Fixture 2000-7999 lumens	Simple Steps	80	$ 1.50	8.34	39.52
LED - Track Light Fixture 0-499 Lumens	Simple Steps	16,553	$ 0.50	3.46	18.42
LED - Track Light Fixture 2000-7999 Lumens	Simple Steps	669	$ 5.00	7.24	23.83
LED - Track Light Fixture 500-1999 lumens	Simple Steps	4,500	$ 2.00	7.23	16.69
LED - Linear Flush Mount Fixture 0-499 lumens	Simple Steps	108	$ 0.50	0.76	1.15
LED - Linear Flush Mount Fixture 500-1999 lumens	Simple Steps	61	$ 2.00	1.33	1.73

Measure description	Program	WA Units	Incentive	Est. Sub TRC	Est. Sub UCT
LED - Exterior Porch Light Fixture 0 -499 Lumens	Simple Steps	68	$ 0.50	15.35	18.42
LED - Exterior Porch Light Fixture 500-1999 Lumens	Simple Steps	133	$ 3.00	15.93	11.13
LED - Exterior Security Fixture 500 -1999 Lumens	Simple Steps	18	$ 2.00	14.72	20.72
LED Retro-Fit Fixture 2000 -7999 Lumens	Simple Steps	18	$ 1.00	5.79	57.60
LED Retro-Fit Fixture 500-1999 Lumens	Simple Steps	18	$ 1.00	5.79	16.14
LED Bathroom Vanity 2000 -7999 Lumens	Simple Steps	9,000	$ 3.00	3.67	16.11
LED Bathroom Vanity 500-1999 Lumens	Simple Steps	19,779	$ 1.00	3.74	13.81
Showerhead 2.0 GPM	Simple Steps	4,635	$ 1.50	10.37	12.91
Showerhead 1.75 GPM	Simple Steps	89	$ 5.00	8.64	8.50
Showerhead 1.5 GPM	Simple Steps	1	$ 7.00	-	8.96
Prescriptive VFDs - HVAC Cooling Pump	VFD	91	$ 130.00	3.96	6.09
Prescriptive VFDs - HVAC Fan	VFD	91	$ 130.00	3.71	5.70
Prescriptive VFDS - HVAC Heating Pump or combo	VFD	148	$ 130.00	6.37	9.80
E TO G FURNACE CONVERSION	WA Low-Income Conversions	22	$ 4,196.51	1.10	1.00

Appendix F:

Program Summary

Program:	kWh	Therms	Total Budget
WA LI (With out Conversions)	722,404	15,323	$ 1,976,558
WA LI (Conversions only)	116,562	(5,039)	$ 134,427
Washington Low Income	838,966	10,285	$ 2,110,985
Residential Prescriptive	1,198,473	477,504	$ 1,848,167
Fuel Efficiency Conversions	15,489,833	(601,771)	$ 4,563,237
Simple Steps, Smart Savings	11,929,925	9,541	$ 2,151,384
Behavioral Program	-		$ -
Residential	28,618,231	(114,726)	$ 8,562,788
Nonresidential lighting interior	7,302,627	(79,702)	$ 1,533,128
Nonresidential lighting exterior	2,517,897		$ 542,986
Nonresidential HVAC	-	32,142	$ 85,702
Site Specific	9,000,000	100,000	$ 2,309,520
Prescriptive Shell	7,853	20,800	$ 51,816
Variable Frequency Drives	452,171		$ 67,944
Green Motors	78,975		$ 13,029
Fleet Heat	32,000		$ 3,407
Energy Smart Grocer	1,438,175	14,578	$ 415,218
Multifamily Market Transformation (Under Site Specific)	3,630,132	(159,444)	$ 2,509,562
Food Services	109,611	49,563	$ 126,781
AirGuardian	42,000		$ 11,527
Non-Residential	24,611,440	(22,064)	$ 7,670,621
WA E/G TOTAL (W/O Conversions)	34,832,110	639,748	$ 11,137,167
Res Conversions	15,489,833	(601,771)	$ 4,563,237
LI Conversions	116,562	(5,039)	$ 134,427
MFMT Conversions	3,630,132	(159,444)	$ 2,509,562
Total Before NEEA	54,068,637	(126,505)	$ 18,344,394
NEEA & CPA	4,993,200		$ 1,717,000
WA TOTAL Budget	59,061,837	(126,505)	$ 20,061,394