2019

Annual Conservation Plan

Washington Electric

November 15, 2018

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I. EXECUTIVE SUMMARY

Avista Utilities' (Avista or the Company) Annual Conservation Plan (ACP 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-171091 approving Avista's 2018-2019 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 84,274 Megawatt-hours (MWh) of qualifying energy efficiency, 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.

The 2019 Plan represents program efforts by the Company in order to achieve its expected eligible acquisition savings for the 2018-2019 biennium. For the 2019 ACP, the Company has identified planned conservation savings, excluding fuel conversions[3], of 49,158 MWh from local efforts and a total of 54,151 MWh after including regionally acquired savings from the Northwest Energy Efficiency Alliance (NEEA). Avista has planned expenses of $2.2 million of fully loaded labor funding across electric and natural gas programs in Washington. The proportion of total utility expenditures returned to customers in the form of direct benefit is 70% which approximates the 69% in the 2018 Annual Conservation Plan. As Compared with the 2018 ACP, the estimated 49,158 MWh is an increase in the forecasted I-937 eligible energy savings. The 2018 ACP included a forecasted acquisition of 42,530 MWh and a total savings estimate, which included fuel conversions, of 58,341 MWh. Table 1 below illustrates the savings and total budget per sector for

[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.

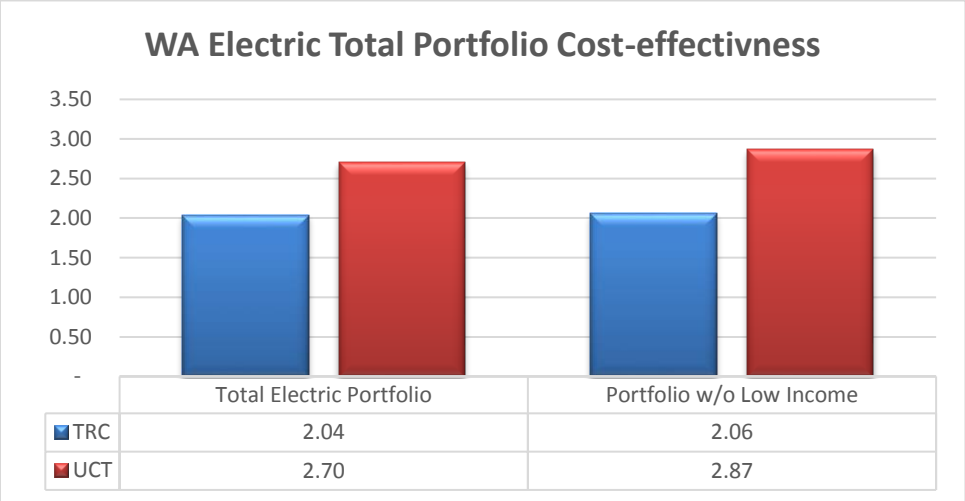
[3] Information regarding fuel conversions can be found in the Washington Fuel Conversion Transition Plan that was (will be) filed October 26, 2018 based on Order No. 07 of UE-170485.

the 2019 program year. Note that budgeted numbers below are inclusive of Non-Incentive Utility Costs (NIUC).

Table 1: 2019 Savings and Budget by Sector

Sector	MWh	Budget
Low Income	319	$ 966,496
Residential	12,856	$ 3,540,832
Non-Residential	35,982	$ 8,143,448
NEEA & CPA	0	$ 1,505,000
CEEP & Pilots	0	$ 1,030,000
Total	49,158	$ 15,185,776

Figure 1: Portfolio Cost-effectiveness



For the 2019 program year, Avista will continue its innovative efforts in exploring new avenues to serve hard-to-reach customers. Starting in 2018, Avista introduced a new pilot program that targeted the hard-to-reach segment through a direct install program. The Multi-Family Direct Install Pilot was initially intended to run through the first part of 2018, however, Avista, along with its Advisory Group, agreed to instate the pilot as a full program effective September 2018. For 2019, the Company expects to see more customers served through the direct install program.

In addition, the Company is moving into the second year of its residential behavioral pilot. In 2018, Avista implemented a residential load disaggregation pilot that provides customers with

granular use information for their common household appliances, lights and other electricity using devices. The pilot was designed to provide customers real-time information on their usage which enables them to make more energy efficient choices. Please see section V for more information on this and other pilot programs for 2019.

II. INTRODUCTION

The 2019 Annual Conservation Plan ("ACP") outlines Avista's conservation offerings, its approach to energy efficiency and details on verifying and reporting savings. The company's plan 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 Energy Efficiency 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 evaluation, measurement 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 conservation 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. Adaptive Management

For the 2019 program year, Avista has incorporated several changes to its residential and non-residential programs with the intention to reach more customers, expand its measure offerings and make energy efficient choices more accessible and affordable. Avista adaptively managed its program by:

1. Offering the Multifamily Direct Install Program as a fully-fledged program in order to engage with the lower income population as well as the hard-to-reach customer segment (see page 26 for details).
2. Working closely with its regulators and Advisory Group to increase the incentive levels for residential weatherization measures to maximize affordability and participation (see page 10 for details).
3. Adding residential insulation measures to its portfolio of offerings allowing more customers to participate in energy efficiency programs (see Appendix A for details).

4. Transitioning programs for energy efficient grocery programs to an in-house program, reducing overall program costs and allowing for additional oversite (see page 30 for details).

b. Evaluation, Measurement and Verification (EM&V) Commitments

Within its Energy Efficiency 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 conservation 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 2019 EM&V budget provides for third-party EM&V services that provide an evaluation of 2019 program year portfolio, along with consolidating these findings with results obtained for reporting requirements associated with the Energy Independence Act (EIA) and the 2018-2019 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 Energy Efficiency and Avista corporate publications. Program-specific EM&V plans are created as required to inform and benefit the Energy Efficiency 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 or pilot 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 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 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 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 Energy Efficiency portfolio in a manner consistent with utility and public interests.

c. 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, low income and non-residential) 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 are included in the appropriate cost-effectiveness tests (Total Resource Cost (TRC) and Participant Cost Test (PCT)). Since the RTF does not currently have Unit Energy Savings (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 2019 portfolio are contained in Appendix C – Cost Effectiveness Methodology. The results of the TRC and Utility Cost Test (UCT) tests are summarized by program and portfolio in Appendix A – Program Plans.

The Company maintains an active involvement in the regional energy efficiency community and is committed to acknowledging and addressing new energy efficiency developments as they are presented. Washington Utilities and Transportation Commission (WUTC) Staff has worked closely with the National Efficiency Screening Project to explore and develop the National Standard Practice Manual (NSPM) which provides a thoughtful review of the challenges associated with traditional conservation cost-effectiveness tests and provides a framework to guide Conservation Program Administrators and Regulators as they seek to address these challenges going forward. A key element of the NSPM's seven-step framework includes the completion of a Resource Value Test (RVT) questionnaire. Avista has been participating in the Statewide Advisory Group (SWAG) where an in-depth exploration and review of the RVT and the NSPM have occurred throughout 2018. Avista and other stakeholders participating in the SWAG

are in the process of determining the potential value and ramifications of the new cost-effective methodology.

d. Schedule 90 and 190 Revisions

Avista's electric Energy Efficiency operations are governed by Schedule 90 tariff requirements and natural gas Energy Efficiency 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 proposes one revision (which was discussed and approved by the Advisory Group at the Fall meeting October 24-25, 2018) to Schedule 90 and 190 tariffs:

1. The Company requests that residential weatherization measures that have eligibility of both electric and natural gas (e.g. windows and insulation) be incentivized at the higher of the electric and natural gas incentive levels rather than be restricted by the $.20/kWh and $3/Therm limits as long as cost-effectiveness criteria is met.

   The following table outlines the specific window and insulation measures along with corresponding incentive levels proposed for 2019:

Measure	Electric	Gas	Incentive Level for both Gas & Electric
Attic Insulation	1.80 kWh $0.36	.15 Therm **$0.45**	**$0.45 /sq ft**
Wall Insulation	2.00 kWh **$0.40**	.07 Therm $0.21	**$0.40 /sq ft**
Floor Insulation	1.00 kWh **$0.20**	.06 Therm $0.18	**$0.20 /sq ft**
Windows	15.25 kWh **$3.05**	.60 Therm $2.00	**$3.05 /sq ft**

e. Schedule 91 and 191 Revisions

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. On May 31, 2018, the Company filed UE-180490 and UG-180491 revising schedules 91 and 191. This filing was approved by the Commission on August 30, 2018 and rates became effective on September 1, 2018.

f. 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 in a variety of ways per WAC 480-109-100(1)(b). 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 EIA Penalty Threshold is 79,785 MWh. This amount represents the overall conservation to be obtained by Avista before the additional 5% Decoupling Threshold[4]. After applying the Decoupling Threshold of 4,489 MWh, the Utility-Specific Conservation Goal is 84,274 MWh. The Total Utility Conservation Goal which includes 9,986 MWh in savings derived from NEEA is 94,260 MWh. The scope of the Annual Conservation Plan covers the majority of the acquisition eligible to achieve these goals, 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 UES values, 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 2019 portfolio performance will be retrospectively measured. The use of RTF UES values also assists in the management of the

[4] 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.

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.

g. Statewide Advisory Group (SWAG)

The Commission approved the Company's 2018-2019 Biennial Conservation Plan in Order No. 1 of UE-171091 dated January 12, 2018. In that order, the Company was required to form a joint advisory group in order to align various practices in target setting. The Order stated that:

> "We accept Avista's calculation of its conservation target, but require the Companies to form a joint advisory group with all stakeholders, including the Department of Commerce, to engage in further discussions about whether NEEA savings should be included in conservation target calculations going forward."

As a result, it was agreed that IOUs (Avista, PacifiCorp, and PSE) would partner with UTC Staff, interested State Agencies, and utility Advisory Group members to try and achieve consensus on state-wide issues affecting efficiency departments. Three key topics were identified for discussion, noted in the proposed charter below:

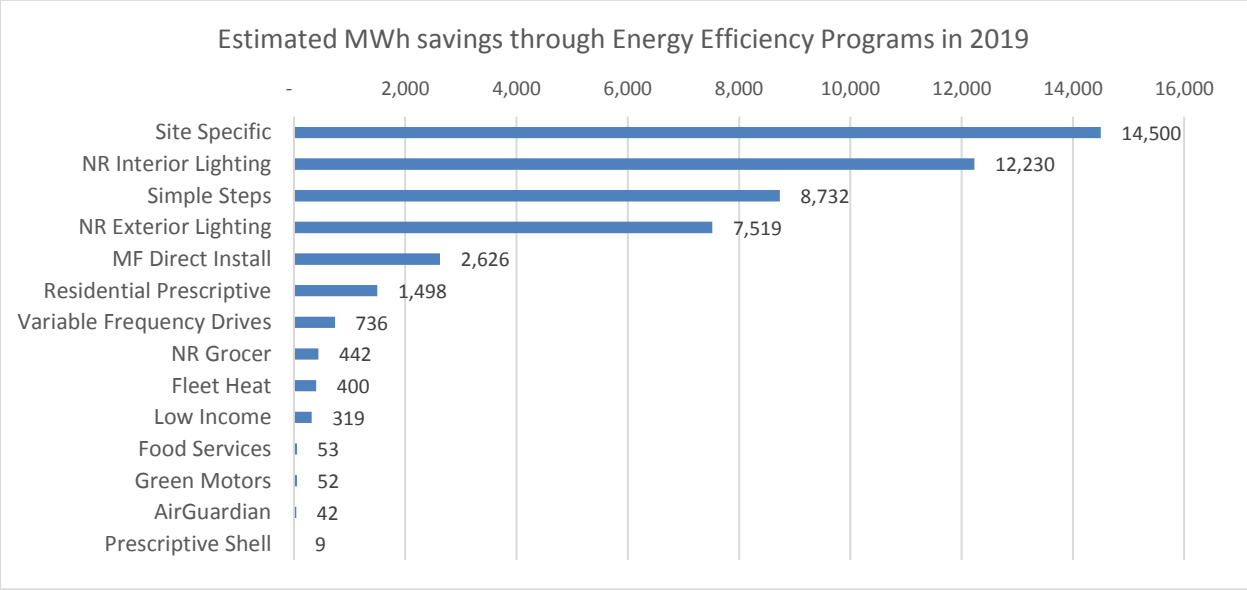
1. NEEA in/out of the penalty target,
2. Areas of CE improvement (Consistent TRC/ Investigate RVT),
3. Utility performance incentive.

The SWAG has met on multiple occasions throughout 2018 and will continue its efforts into the 2019 program year.

IV. ENERGY EFFICIENCY PORTFOLIO OVERVIEW

Avista's Energy Efficiency portfolio is comprised of residential, low income and non-residential programs. For the 2019 program year, the Company anticipates approximately 49,158 MWh of I-937 qualified savings from its program offerings. Note that these savings are from utility-specific conservation and do not include regional efforts from NEEA. The following figure illustrates the major categories from which those savings are achieved.

Figure 2: 2019 MWh Savings from Energy Efficiency Programs



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.

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 2019 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 is the primary guidance in reaching decisions regarding eligibility for measures as well as overall cost-effectiveness of the portfolio. For natural gas, the UCT is applied. In the event that a previously offered measure is no longer cost-effective, the Company may initiate a transition plan 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 NEEA. Currently there are significant regional efforts active in the markets for 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.

The manufactured home segment is an important component within the residential portfolio and many of our 2019 program offerings are designed to be inclusive of this segment. Avista provide incentives through our ENERGY STAR Homes incentive for Eco-Rated manufactured homes. The Company also offers a ductless heat pump and a heat pump water heater incentive that offers manufactured homes additional options especially when natural gas is not available. 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 of qualifying natural gas water heater and high efficiency natural gas furnaces through the Company's Line Excess Allowance Program (LEAP). As another example of Avista's efforts that may benefit manufactured housing, Avista provides approximately $3.05 million annually ($2.35 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 to assist these customers.

These are just some highlights of continued efforts to focus on and serve manufactured homes along with stick built residential dwellings.

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 $2,350,000. The distribution of these funds is represented in the following table:

Table 2: 2019 Estimated Low Income Funding by CAP Agency

CAP Agency	County	Funding
SNAP	Spokane	$1,545,125
Rural Resources Community Action	Ferry, Lincoln, Pend Oreille, Stevens	$227,950
Community Action Center	Whitman	$171,550
Opportunities Industrialization Council	Adams, Grant	$88,125
Spokane Indian Housing Authority	Stevens County	$23,500
Washington Gorge Action Program	Klickitat, Skamania	$11,750
Community Action Partnership	Asotin	$282,000
		Total $2,350,000

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 to the Company's energy efficiency efforts, an "Approved" list of measures is provided that allows for full reimbursement.

In 2018, Washington agencies received an additional $350,000 through the 2018 WA General Rate Case (GRC) Order No. 07 in Dockets UE-170485 and UG-170486 for electric weatherization measures. This amount has been reflected in the 2019 budget. Higher costs per weatherized household over the same fixed amount of Low-Income funds available has over-time resulted in a decrease in low-income participation. 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. The CAP agencies receive other non-utility funds that they may also use to treat an Avista home. Washington CAP agencies typically weatherize between 200 and 250 homes in a given year with Avista funding.

In addition to the traditional Low-Income programs, Avista is partnering with CEEP (Community Energy Efficiency Program) to deliver energy efficiency offerings for hard-to-reach markets such as rental properties, homes with alternative heat and households that are considered low to moderate income. CEEP is a program that is unique to Washington State and was created by the Washington State Legislature in 2009. Initially funded by the American Recovery and Reinvestment Act, CEEP has developed into a mature program with support from the Washington State Capital Budget. The Washington State University (WSU) Energy Program executes and manages the program to provide support to homeowners and small businesses across the state so they can make energy efficiency upgrades to existing residences and commercial buildings. CEEP has allocated up to $680,000 for projects in the Company's service territory which Avista has agreed to match. The primary focus of the CEEP funds is targeting building improvements to multifamily housing that may include but are not limited to: improvements to HVAC systems and controls, building envelope, weatherization measures and lighting. A secondary initiative of the CEEP funding allocation is to convert income-qualified, single family, alternative heat homes (e.g.: oil and wood) to high efficiency electric space heat, or where available, to natural gas space

heat. Avista's $680,000 match has been included in the Company's 2019 budget as a line item under Avista's pilot programs.

c. Non-Residential 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.

When the prescriptive path is not available, Avista offers nonresidential customers the opportunity to propose any energy efficiency project with documentable energy savings for 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 Schedules 90 and 190.

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

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 program marketing, as well as serve their functions within the program implementation process.

The site-specific program savings can be difficult to predict due to the large nature of the projects along 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.

d. Regional Market Transformation

Avista's local Energy Efficiency 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 Energy Efficiency 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 for the 2015-2019 program years. Efforts are underway now to develop and finalized the 2020-2024 Business Plan. Avista has been an active participant and funder of this collaborative effort since the beginning.

It is recognized that the future NEEA portfolio may not be as cost-effective as it has been in 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 2019, the Company's portion of NEEA's Electric budget is expected to be approximately $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 2019 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 2019, the Company is exploring multiple pilot programs for both residential and non-residential customers. The progress of these pilot programs is shared regularly with the Advisory Group. The below outlines and describes the current pilots (budgets and expected participation numbers are yet to be determined).

a. Residential Behavioral Pilot Program

The purpose of this pilot is to take the Avista behavior program to the next level and create a bridge for customers toward Advanced Metering Infrastructure (AMI) by providing more detailed end-use load feedback to customers. The pilot program will install devices that use interval data of the customers energy usage, trends, home profile analysis that contribute to energy use.

In 2018, Avista began a behavioral program using web-enabled devices. Avista utilizes a 3rd party vendor to connect with the device manufacturer's servers to pull electric data for participating customers. This data will be analyzed to determine the impact the space heating and cooling loads have against whole house usage. Other load disaggregation options will be explored as well. Those results will also be shared with participating customers along with any actionable suggestions the customer could make to improve their home energy profile. The behavioral pilot program includes the following:

- 100 communicating devices using 70/30 split (WA & ID).
- Customers must have wireless (WIFI) home capabilities.
- Customers must have the ability to install the device in home electric panel.

Recognizing the energy efficiency acquisition for this program has yet to be reliably quantified, Avista will work with the independent third-party evaluation staff to identify a methodology that will attempt to identify the energy savings.

The pilot program includes residential customers in Washington and Idaho with primary heating fuel options of electric (forced air & air source heat pump) and natural gas (forced air & boilers). Energy savings are expected to be the result of behavior changes.

Avista began marketing to eligible customers on May 1, 2018 and all connected devices were installed by July 1, 2018. A sunset date for this pilot program is expected to be approximately one year after launch (July 1, 2019) in order to evaluate energy savings for both the heating and cooling seasons. Pilot goals include:

- Load disaggregation with primary focus on machine learning and energy efficiency insights.
- Smart Phone and web application providing customers with auditory and visual alerts on energy usage.
- Allow customers to set goals and get notifications as they track to those goals.
- Whole home and device-specific efficiency and comparison data.
- "Home check" unexplained power outage, flickering lights, malfunction appliance.
- Weekly Actives (i.e. did the customer use the app in a given week?)
- Weekly Usage (i.e. how many app sessions did the customer engage in this week?)
- Retention (i.e. how many customers are still using the app 3mo & 1yr after installation?)
- Potential energy efficiency savings will be reviewed by 3rd party evaluators.
- Appliance fault detection. (i.e. refrigerators are leaking coolant, when an AC condenser's fan is clogged or when the run capacitor has failed.)
- Energy Threshold events (i.e. "Alert me if my Freezer is ON for 20 min".)

b. <u>Residential In-Home Energy Audit and Weatherization</u>

Avista presented the residential direct install program pilot idea to its Advisory Group for input during the Fall 2017 meeting. The program has been on-hold through much of 2018 and is planned to 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.

This pilot was positioned to be able to do direct install in single family residences with an added audit that could verify or point out additional measures which could be accomplished. The idea of preselecting poorly operating homes using technology was part of the thought process given at the fall meeting. This would allow us to focus our attention on the homes that needed an audit the most. These home then would work with those 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 that 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.

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. The first phase of this pilot will use Avista's Geographic Information System (GIS) to show hotspots based on energy intensity by square feet to preselect energy inefficient homes. These pre-selected homes will then be audited to see if the GIS system created accurate predictions.

c. Residential Wall Insulation Pilot

Avista has partnered with Residential Home Solution to offer to pay the incremental cost of the first 6-8 homes that do one of the three following options when replacing their siding:

- Add 1" foam insulation (R5) over the buildings structural sheathing, vapor barrier house wrap over the top of the foam, with the siding installed to manufacturers specs over the top of the house wrap.
- Install self-adhering house wrap in lieu of traditional house wrap. This style of wrap has no penetrations from fasteners and does not require seam tape. This should reduce infiltration better than traditional wrap.
- Install tradition house wrap, all seams are to be properly taped as well as around all shell penetrations. Based on modeling the reduction of infiltration represents a large portion of the potential energy savings.

Avista has followed the siding replacement of three homes so far with one adding insulation as well as a new vapor barrier and two others that have just installed house wrap properly. Results from before and after blower door tests have shown an average infiltration reduction of 10% on the treated homes. The homes will be monitored over the heating season to

estimate the fuel savings. Avista will evaluate the savings and determine if a full program is cost effective.

VI. AVISTA-SPECIFIC METHODOLOGIES & 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 Energy Efficiency. Avista completes an Annual Conservation Report (ACR) 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 C – Cost Effectiveness Methodology). For planning purposes, the focus is upon the TRC and UCT tests since that is the basis for optimizing the portfolio for the reasons previously explained. Therefore the explanation of Avista's methodologies focus upon those two tests.

The calculation of portfolio cost-effectiveness excludes costs that are unrelated to the local Energy Efficiency 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 costs 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.

Since the costs and benefits associated with the adoption of a measure may accrue over time, it is necessary to establish a discount rate[5]. 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.

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 Avista 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.

Avista's Energy Efficiency portfolios are built from the bottom up, starting with the identification of prospective efficiency measures based upon the most recent CPA and augmented with other specific opportunities as necessary. Since potential assessments are only performed every two years and the inputs 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.

[5] 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 was used.

VII. ANALYTICAL REVIEW OF ENERGY EFFICIENCY PROGRAMS

The annual planning process begins with a "blank slate" approach to maximizing the value of the Energy Efficiency portfolio to customers. The process ends when the portfolio meets or exceeds the desired objectives and goals. Within this section is a summary of the composition and performance of the planned 2019 portfolio.

The basis for incorporating a measure within a program being offered to customers are primarily, but not exclusively an evaluation of the contribution of each individual measure to the portfolio cost-effectiveness. Factors other than cost-effectiveness that are 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 is categorized as follows:

a. Residential Programs
b. Low Income Programs
c. Non-Residential Prescriptive Programs
d. Non-Residential Site-Specific Programs

a. Residential Programs

Avista's Residential Energy Efficiency program is comprised of three main segments which include:

- Residential Prescriptive
- Multifamily Direct Install
- Simple Steps Smart Savings

Residential Prescriptive: Prescriptive measures 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. 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 2019 electric residential portfolio consists of the below prescriptive programs:

- ENERGY STAR Homes
- HVAC
- Shell
- Water Heat

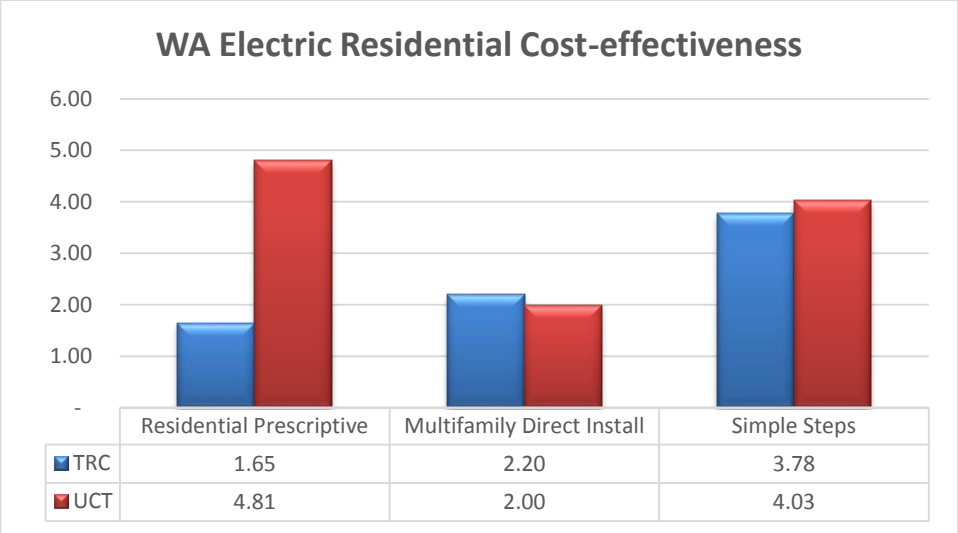
Measure level data for the Residential Prescriptive programs which includes TRC and UCT cost-effectiveness can be found in Appendix A – Program Plans.

Multifamily Direct Install Program: Through the Multifamily Direct Install Program, Avista provides free gas and electric direct-install measures to multifamily residences (of five units or more) and common areas in its service territory. SBW Consulting, Inc., the program implementer, contacts the property managers and schedules appointments to conduct audits and install energy-saving products in all of the units and in common areas. These products include faucet aerators, showerheads, LED light bulbs, smart power strips, vending misers, and common area lighting retrofits. The implementer also conducts energy audits to identify other savings opportunities at the property and to gauge the property manager's interest in other Avista program offerings. This program certainly serves the hard-to-reach customer segment as well as Avista's low and limited income population.

Simple Steps, Smart Savings: The Simple Steps, Smart Savings is an upstream model that partners with manufacturers to buy-down the costs of products including residential lighting and showerheads. See Appendix A for more details about the Simple Steps program.

The program-by-program cost-effectiveness of the portfolio is graphically represented in the figure 3:

Figure 3: Residential Programs Cost-Effectiveness



b. 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 2019, Avista has defined 30 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.

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 to the Company's energy efficiency efforts, an "Approved" list of measures is provided that allows for full reimbursement. Measures reimbursed at 100% have a 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 2019 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%.

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.

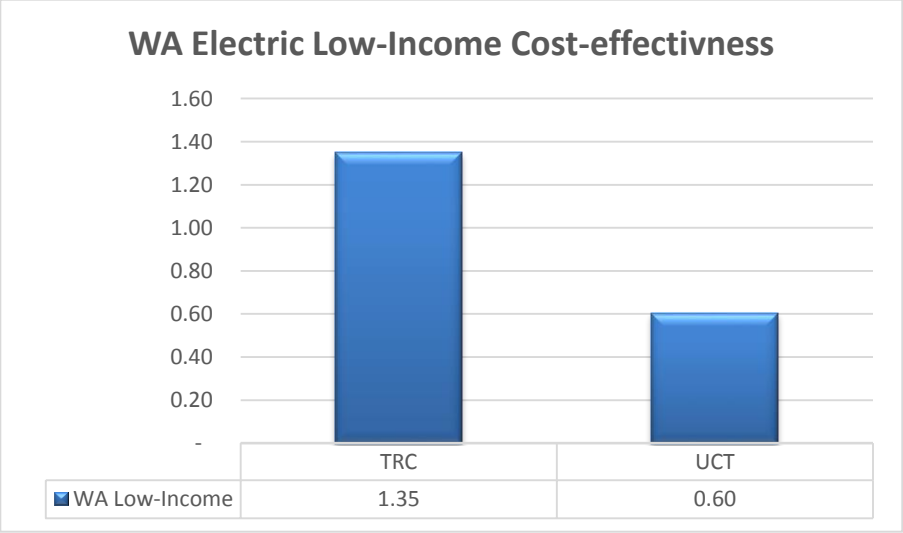
Other non-energy benefits associated with individual measures are quantified and included within the low income portfolio analysis in a similar manner to any other measure within the Avista Energy Efficiency portfolio.

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.

Figure 4 below identifies the TRC and UCT cost-effectiveness for the Low-Income programs.

Figure 4: Low Income Cost-Effectiveness



c. 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 2019 Electric portfolio consists of the below prescriptive programs:

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

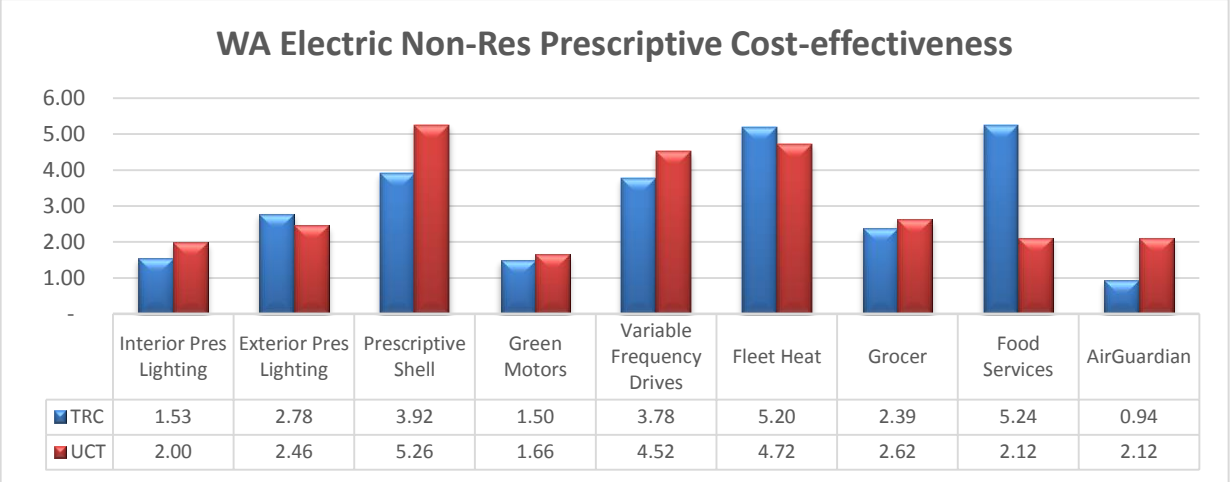
Two of the above listed programs (Air Guardian and Green Motors) are offered to customers through third-party implementation staff while the other programs are fielded by Avista Energy Efficiency staff.

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

For 2019, Avista's Grocer program, previously EnergySmart Grocer, which has historically been administered through a third-party (ClearResult) will be offered in-house through

traditional prescriptive and site-specific channels. Avista will offer the same cost-effective measures, but expects to see a higher cost-effectiveness for the program as third-party administrative fees will be eliminated. The program offerings are now included in the Grocer Program. The refrigeration engineering specialties which Avista does not presently have will be taken care of in a Request for Proposal (RFP) for professional services. This change was brought about by concerns of maintaining cost effective operations by both ClearResult and Avista.

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



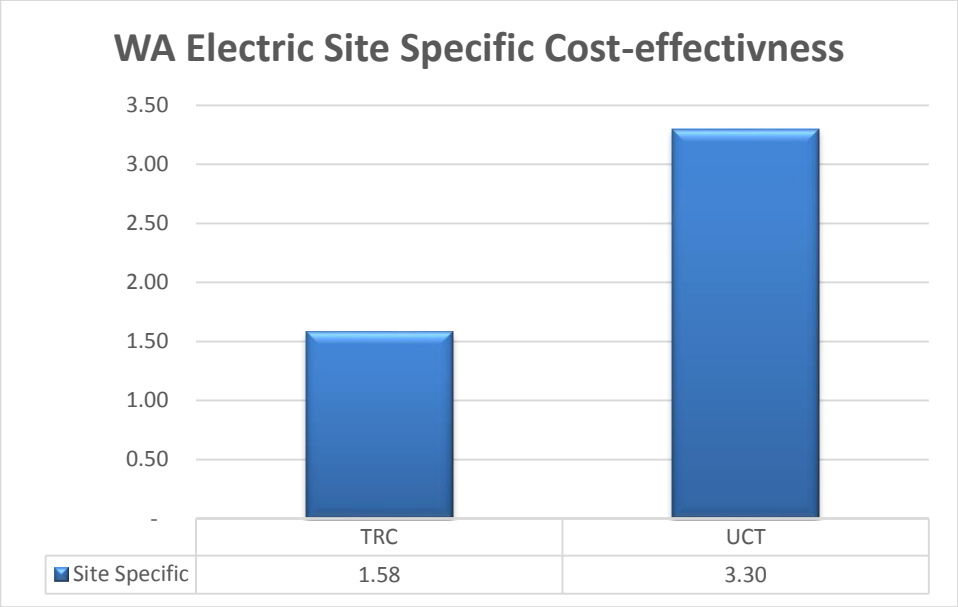
	Interior Pres Lighting	Exterior Pres Lighting	Prescriptive Shell	Green Motors	Variable Frequency Drives	Fleet Heat	Grocer	Food Services	AirGuardian
TRC	1.53	2.78	3.92	1.50	3.78	5.20	2.39	5.24	0.94
UCT	2.00	2.46	5.26	1.66	4.52	4.72	2.62	2.12	2.12

d. Non-Residential 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 2019 are based off of the year-to-date 2018 savings and then annualized for a 12 month period. Figure 6 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

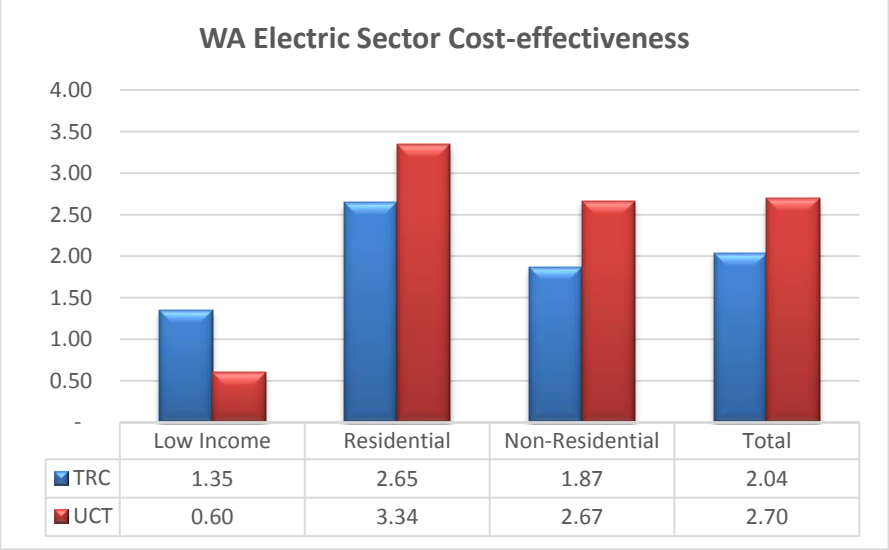


Figure 8: Sector Portfolio Savings

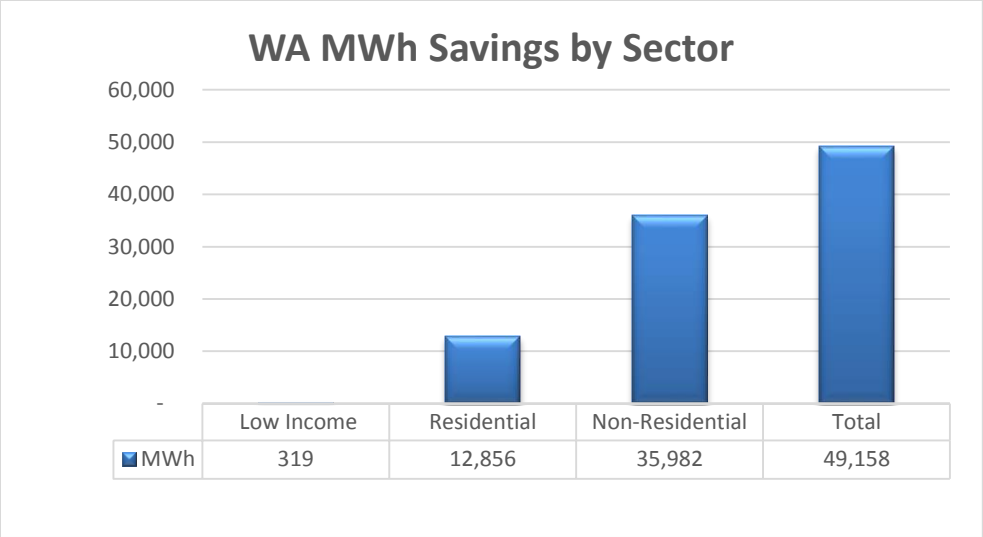
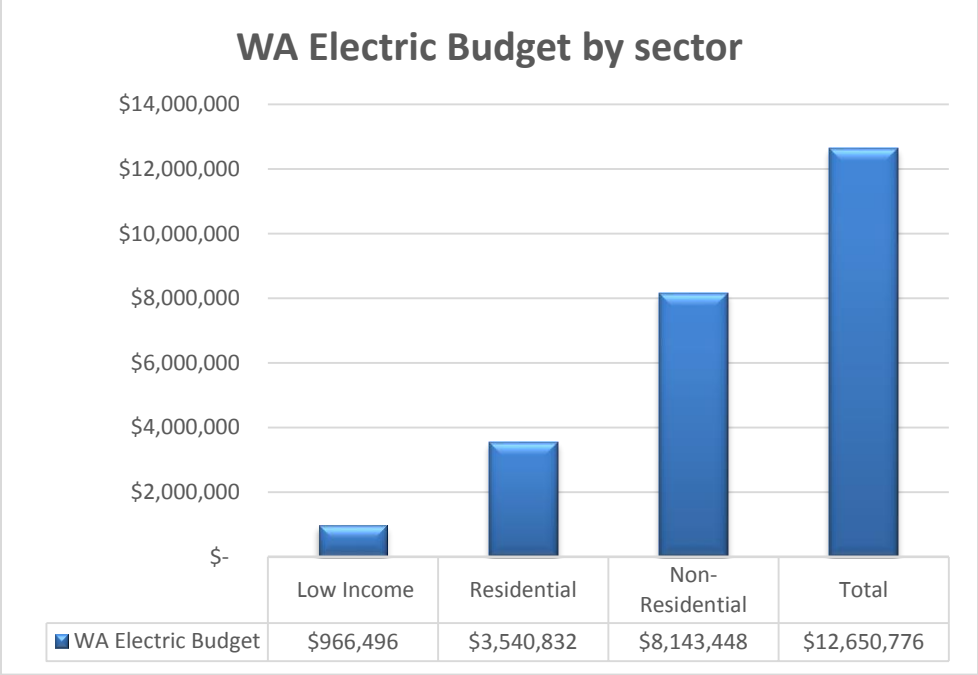


Figure 9: Sector Portfolio Budget



The above figure represents the total budget for Low-Income, Residential and Non-Residential sectors. In addition to the amount shown below, the Company also anticipates approximately $350,000 for new pilot programs, $680,000 for CEEP funding and an additional

$1,505,000 to fund NEEA and the Conservation Potential Assessment. The total budget including these items, is $15,185,776.

IX. WASHINGTON I-937 ACQUISITION TARGET

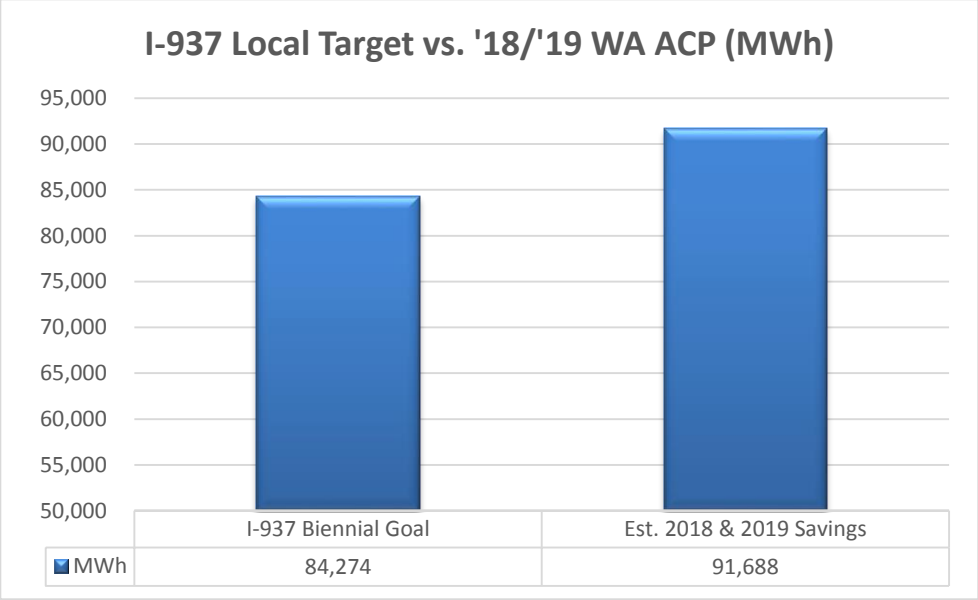
The 2018-2019 Washington I-937 Energy Efficiency Utility-Specific Conservation Goal is 84,274 MWh. To fulfill the total biennium conservation target the 2019 Annual Conservation Plan's expected eligible acquisition is 49,158 MWh. The below table illustrates the details of the I-937 acquisition target.

Table 3: Washington I-937 Goal

Category	Target (MWh)
CPA Pro-Rata Share	73,636
Behavioral Program Savings	15,386
Excluded Programs (NEEA)	(9,986)
End-Use Efficiency Measures Subtotal	79,036
Distribution and Street Light Efficiency	749
EIA Penalty Threshold	**79,785**
Decoupling Threshold	4,489
Utility-Specific Conservation Goal	**84,274**
NEEA 2-year Forecasted Savings Acquisition	9,986
Total Utility Conservation Goal (with regional savings)	**94,260**

As 2018 comes to a close, the Company estimates that savings achieved will approximate 42,530 MWh from utility-specific savings. This amount, in additional to the estimated 49,158 MWh of energy efficiency savings in 2019 totals an estimated 2018-2019 biennial achievement of 91,688 MWh. Figure 10 represents the expected 2018-2019 BCP savings.

Figure 10: I-937 Utility-Specific Conservation Goal (2018/2019) vs. Utility-Specific Conservation Planned Achievement (2018/2019)



X. SUMMARY OF 2019 BUDGET

Projections of expected labor requirements by job classification are made by managers within the Energy Efficiency team and labor overheads are applied. Labor is allocated to programs based on the weighted value of benefits the program brings to the overall portfolio.

The expectations in 2019 indicate $3.9 million of fully loaded labor funding across electric and gas programs in both Washington and Idaho, a 5% increase from the 2018 budget. This amount will fund 26 FTE (Full Time Equivalent) spread across 33 different individuals compared to 25 FTE spread across 33 individuals in 2018.

a. Overall Energy Efficiency Budget Projections

Based upon all of the preceding planning, a compilation of the total Energy Efficiency 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 Energy Efficiency 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 conservation 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 Company recognizes that customer demand and market factors exist outside of the budgeting process and that forecasted expenses may be higher or lower than actual results. The forecasted budget does not represent an expectation or commitment to limit expenses to the planned amounts.

The overall 2019 budget projection is summarized below. The table includes elements of the Energy Efficiency 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. These supplemental costs include the funding associated with regional programs (NEEA) and the cost to perform conservation potential assessment studies.

Table 4: Summary of the 2019 Energy Efficiency Budget

	2019 Washington Electric Budget	Supplemental Budget	Non-Supplemental Budget
Total Incentives	$8,738,638	$0	$8,738,638
Administrative Labor	$1,014,397	$0	$1,014,397
Direct Benefit to Customer Labor	$885,887	$0	$885,887
Total non-labor/non-incentive	$4,546,855	$1,505,000	$3,041,855
Total	$15,185,776	$1,505,000	$13,680,776

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 customers through direct benefits

% of utility expenditures returned to customers via direct benefits	70%

The direct benefit figure includes the incentives paid to customers for energy efficiency programs in addition to the amount of engineering time that is spent on customized projects for energy efficiency participants. 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

Energy Efficiency Programs	Direct Incentive Expenditure
Low Income Programs	
Low-Income	$581,454
Total Low Income Incentives	$581,454
Residential Programs	
Residential Prescriptive	$264,569
Multifamily Direct Install	$1,246,714
Simple Steps	$587,032
Total Residential Incentives	$2,098,316
Non-Residential Programs	
Interior Pres Lighting	$2,310,263
Exterior Pres Lighting	$1,314,465
Site Specific	$2,233,000
Variable Frequency Drives	$68,900
Pres Green Motor	$6,340
Fleet Heat	$26,025
Grocer	$79,527
Food Services	$9,033
AirGuardian	$10,080
Total Non-Residential Incentives	$6,058,868
Total of all incentives	**$8,738,638**

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

Expense Type	Washington electric portfolio	Supplemental budget	Non-Supplemental budget
Third party non-incentive payments	$811,461	$0	$811,461
Labor	$1,900,284	$0	$1,900,284
EM&V	$202,487	$0	$202,487
Memberships	$127,330	$0	$127,330
Outreach	$479,858	$0	$479,858
Training/Travel	$38,080	$0	$38,080
Regulatory	$2,500	$0	$2,500
Software	$178,500	$0	$178,500
CPA	$105,000	$105,000	$0
General Implementation	$171,638	$0	$171,638
CEEP & Pilots	$1,030,000	$0	$1,030,000
NEEA	$1,400,000	$1,400,000	$0
Total	$6,447,138	$1,505,000	$4,942,138

XI. STUDIES AND OTHER ITEMS

a. iEnergy DSM Enterprise Software Integration

During 2019, Avista will utilize the iEnergy software platform for several functions. The DSM Central module will be used internally to process, and track Energy Efficiency projects. Commercial rebate submissions are the priority for inclusion to increase our access to the data elements collected. Residential project details may also begin to be migrated into the software if resources become available. In addition, the Trade Ally module will be used to improve communications with regional vendors, and installers. 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.

b. 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 received results from ABT Consulting for the development of PM 2.5 non-energy values for offering wood burning on a measure BTU basis. Avista discussed these results with their Advisory Group at the Fall 2018 meeting to determine an agreed upon value for non-energy benefits. Consensus was reached to use the median values and take an average of the high and the low values which results in $0.0065 ($ per kWh of electricity saved) by ductless heat pump replacing zonal heat and $0.0041 ($ per kWh of electricity saved) by replacing zonal heat with natural gas furnaces.

c. Real Time EM&V 2.0

The Company also explored potential benefits of Real Time EM&V 2.0 for its customers and contracted with Nexant to perform a study assist with this inquiry. The purpose of the study was to identify any measurable and immediate savings to residential customers using interval data. The Company began this effort in 2016 and finished this review in late 2017. Avista received the results of the study in the second quarter of 2018 and the suggestion by the study administrator was that due to the small sample size, the results of the study did not produce meaningful findings. Due to the inconclusive result, Avista is in the process of determining the next steps for this study.

d. Advanced Meter Infrastructure (AMI)

Avista's movement towards 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 feedback on their energy usage and have the opportunity to adapt based on that data. As the Company continues efforts towards implementation of AMI, changes have been made to the

current behavioral program offerings. AMI implementation began September 5th, 2018 and will continue on through the rest of the 2018-2019 biennium, with installations expected to conclude August 2020. The 2-year deployment is projected to install about 250,000 electric and 155,000 gas meters across Avista's Washington service territory.

XII. CONCLUSION and CONTACT INFORMATION

This 2019 Annual Conservation Plan represents program efforts by the Company in order to achieve its expected eligible acquisition savings for the 2018-2019 biennium. For additional supporting information please see the corresponding appendices:

Appendix A: Program Plans
Appendix B: Evaluation, Measurement and Verification Plan
Appendix C: Summarization of Cost-Effectiveness Methodology
Appendix D: Quick Reference Guide to Commonly Used Terms
Appendix E: Schedule 90 and 190, Washington
Appendix F: Program Summary
Appendix G: Impact Evaluation Recommendations

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