2023 Washington Electric
Energy Efficiency Annual Conservation Plan

November 15, 2022

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Such risks, uncertainties, and other factors include, among others, those in our most recent annual report on Form 10-K, or quarterly report on Form 10-Q, filed with the Securities and Exchange Commission. Those reports are available on our website at avistacorp.com.

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Avista Utilities' *Annual Conservation Plan* (*ACP*) is provided consistent with RCW 19.285.040 and WAC 480-109.120(2), as well as requirements outlined in Commission Order No. 01 in Docket No. UE-21086, approving Avista's *2022-23 Biennial Conservation Plan* (*BCP*) with conditions.

As Avista enters the second year of its 2022-23 biennium, Avista continues its commitment of delivering reliable energy service along with the efficiency choices that matter most to its customers. 2023 will mark the second year of implementing the Clean Energy Transformation Act (CETA). The Energy Efficiency team will build on the success of CETA programs and initiatives piloted in 2022 and continue to develop solutions that extend the benefits of clean energy to named communities within Avista's service territory.

As the region emerges from the COVID-19 pandemic, supply chain constraints and labor shortages continue to be significant obstacles to program implementation. To adapt to these difficult conditions, Avista has taken an aggressive approach to incentives for 2023, optimizing the incentive to customers while maintaining cost-effectiveness.

Avista's customers have experienced significant hardships, further highlighting the need to focus on keeping energy affordable. Avista's energy efficiency portfolio continues to be an effective tool for lowering customers' overall energy usage and energy burden, but economic factors still prevent some from participating in meaningful energy efficiency upgrades. The planned activities for 2023 focus on new paths toward energy efficiency and exploring ways of connecting with customers outside of traditional prescriptive channels.

The 2023 *ACP* represents program efforts made by the company to achieve its expected eligible acquisition savings for the second year of the 2022-23 biennium, while also providing details on programs and initiatives. For 2023, Avista has identified estimated conservation savings of 57,761 megawatt-hours (MWh) from local efforts as well as 5,782 MWh from regionally acquired savings through the Northwest Energy Efficiency Alliance (NEEA),[1] and an additional 7,365 MWh from Conservation Voltage Reduction (CVR), combining for a total estimate of 70,878 MWh.

Table 1 provides the estimated conservation achievement (in MWh) and anticipated expenses for each market sector in Avista's program portfolio, as well as expenses for Evaluation, Measurement, and Verification (EM&V). The total expense for 2023 is estimated to be $29,581,334. This amount includes an estimated $2.3 million[2] for programs that serve Named Communities, as well as $1 million for new pilot programs and $1.3 million to fund NEEA regional market transformation efforts, in addition the nearly $3 million set aside for low-income programs. The proportion of total utility expenditures returned to customers in the form of direct benefit is 77 percent.

1) To achieve consistency with other Washington investor-owned utilities, Avista has included "Program Measures" and savings from "Codes & Standards Measures."

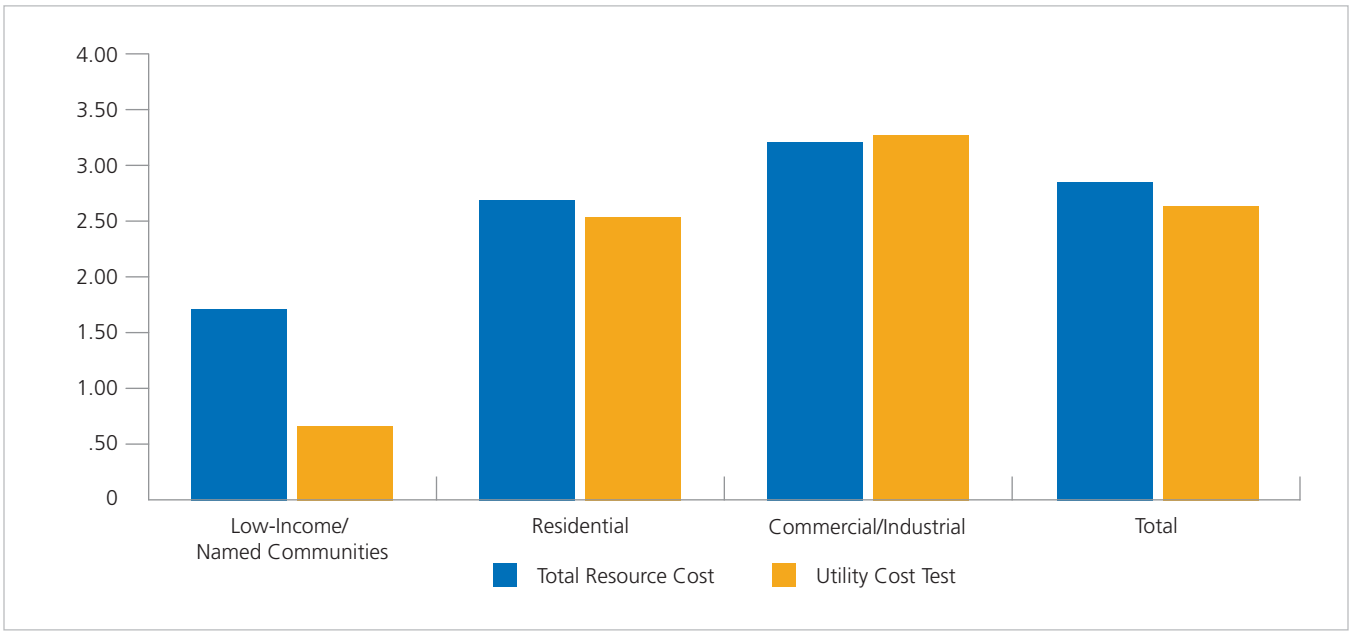
2) Includes $2 million of Named Community investment funds and any potential administrative allocations.

TABLE 1 – PORTFOLIO SAVINGS AND BUDGET BY SECTOR

	MWh	Budget
Low-Income Programs	1,204	$ 2,994,397
Named Communities	450	$ 2,329,825
Residential Programs	8,822	$ 5,441,234
Commercial/Industrial Programs	47,285	$ 16,279,232
Energy-Efficiency Pilot Programs	TBD	$ 1,000,000
EM&V / CPA	–	$ 278,645
NEEA	5,782	$ 1,358,000
Conservation Voltage Reduction	7,365	TBD
Total	**70,878**	**$ 29,581,334**

Cost-effectiveness is a key indicator of Avista's energy efficiency portfolio performance, and while Avista pursues all cost-effective measures, the company also retains flexibility in its program design so that meaningful energy efficiency can be attained by all customers. Avista's Energy Efficiency Program is inclusive of a segment that targets efforts toward income-qualified customers, providing a higher level of benefit (incentive) to these more vulnerable populations. Figure 1 illustrates a summary of the portfolio cost-effectiveness for each sector and in total.

FIGURE 1 – PORTFOLIO COST-EFFECTIVENESS



	Low-Income/ Named Communities	Residential	Commercial/ Industrial	Total
Total Resource Cost	1.70	2.68	3.19	2.86
Utility Cost Test	0.63	2.51	3.27	2.60

Introduction

The 2023 *ACP* outlines Avista's conservation offerings and its approach to energy efficiency, and provides details on verifying and reporting savings. The company's plan is based on two key principles: the first is to pursue all cost-effective kWh savings by offering financial incentives for implementing energy-saving measures; the second 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 Partnership (CAP) agencies, (5) low-cost/no-cost advice through a multi-channel communication effort, (6) support for cost-effective appliance standards and building codes, and (7) the pursuit of midstream efforts to better reach customers.

This *ACP* is intended to represent a continuous planning process. Avista is committed to maintaining and enhancing 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 spectrum of customers, virtually all of whom have the opportunity to participate in – and a great many having already benefited from – the program offerings. All customers, including non-participants, benefit indirectly through enhanced cost efficiencies as a result of this portfolio approach.

The business planning process for the Avista program portfolio builds on the electric *Integrated Resource Plan* (*IRP*) and CPA processes. These are overall resource planning processes completed every two years that integrate energy efficiency and generation resources into a preferred resource scenario. The purpose of the business plan is to create an operational strategy for reaching the aggregate targets identified within the *IRP* in a manner that is cost-effective – and that considers all aspects of customer value.

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 tariff. The tariff rider surcharges are periodically adjusted with the objective of moving these balances toward zero.

Washington I-937 Acquisition Target for the 2022-23 Biennial Period

The Energy Independence Act (EIA) requires utilities to establish a minimum electric acquisition standard for conservation resources for each designated biennium. For 2022-23, Avista's EIA target is 101,566 MWh, which represents the overall conservation to be obtained by the company before the additional five percent decoupling threshold[3] of 5,078 MWh. The total conservation goal is 106,644 MWh. The Avista-specific conservation goal, which removes 10,512 MWh in savings derived from NEEA, is 96,132 MWh. To arrive at the EIA penalty threshold of 91,054 MWh, the five percent decoupling penalty is removed from the Avista-specific conservation goal. Energy savings acquisitions attributed to Avista through regional market transformation have been included in the acquisition target; they have been excluded, however, from the EIA penalty threshold.

TABLE 2 – BIENNIAL CONSERVATION TARGET

2022-23 Biennial Conservation Target (MWh)	
CPA Pro-Rata Share	101,566
EIA Target	**101,566**
Decoupling Threshold	5,078
Total Utility Conservation Goal	**106,644**
Excluded Programs (NEEA)	(10,512)
Utility Specific Conservation Goal	**96,132**
Decoupling Threshold	(5,078)
EIA Penalty Threshold	**91,054**

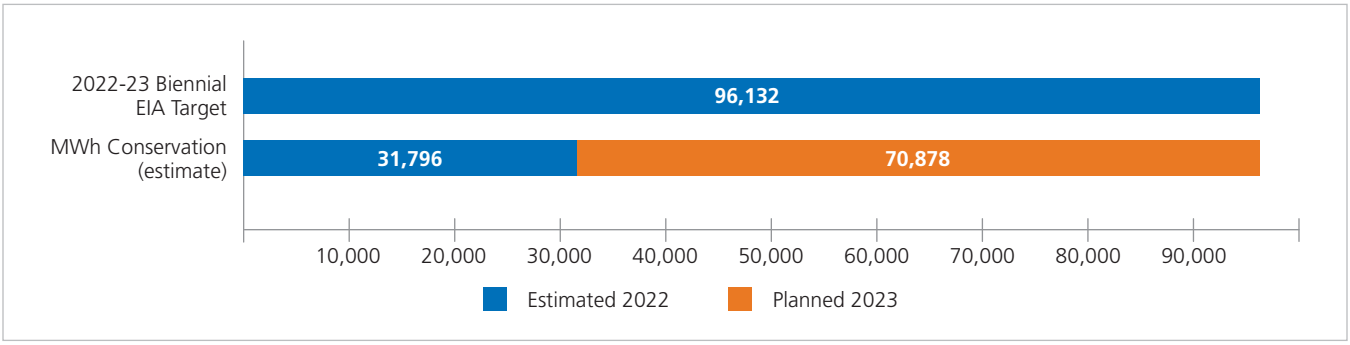
Since the EIA target was established based on Northwest Power and Conservation Council (NWPCC) methodologies and the council's Regional Technical Forum (RTF) Unit Energy Savings (UES) values, those same methodologies and savings are employed, to the extent possible, in measuring the savings eligible to achieve that target. The planning effort has, with a few isolated exceptions, adopted the same approach in order to generate the best prediction of how 2023 portfolio performance will be retrospectively measured. The use of RTF UES values also assists in the management of the company's EM&V expense by reducing the expenses associated with impact evaluation. The relationship between the regional utilities and the RTF is, however, 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.

As Avista enters the second year of Its biennial period, several challenges related to achieving energy efficiency conservation are expected to continue. To address these market barriers, Avista is focusing on adaptive management of its program design to better engage with customers, address hard to reach markets, and focus on areas where customers have not engaged. Figure 2 estimates the biennial savings derived from program years 2022 and 2023.

With market challenges slowing participation in 2022, Avista will need to invest in ways to better engage with customers to ensure that it meets its biennial target of 96,132 MWh.

3) As part of the General Rate Case Settlement Agreement in Docket Nos. UE-140188 and UG-140189, the company agreed, in consideration of receiving a full electric decoupling mechanism, to increase its electric energy conservation achievement by five percent over the conservation target approved by the Commission, beginning with the 2016-17 biennial target.

FIGURE 2 – BIENNIAL ELECTRIC CONSERVATION ESTIMATE



The level of conservation estimated in 2023 will impact the current balances within the energy efficiency tariff rider (Schedule 91). This conservation level is expected to result in an underfunded balance by the end of 2023. Table 3 below shows the estimated balance at the beginning of the year, estimated funding from customer collections, and annual expenditures by the end of the year. Based on these estimates, Avista anticipates that there would be an underfunded balance of $12.5 million if the company did not modify its tariff rider rate.

The current rate level is designed to fund the program by approximately $14.5 million annually, which is projected to be adequate for the level of conservation expected in 2022. However, at the current level of program participation, Avista would not meet its biennial target of 96,132 MWh as identified in Avista's *2022-23 Biennial Conservation Plan*.

TABLE 3 – 2023 TARIFF RIDER BALANCE ESTIMATES

Estimated Electric Energy Efficiency Balances	Underfunded / (Overfunded)
Estimated Balance at January 1, 2023	$ (2,575,564)
Tariff Rider Funding	$ 14,546,957
Annual Expenditures	$ 29,581,334
Estimated Balance at December 31, 2023	$ 12,458,813

The 2023 budget is estimated to be approximately $8 million dollars higher than the plan for 2022. The main driver for this increase in estimated spending is the forecast participation required to meet Avista's biennial goal. However, increased incentive values, new program design, and other factors also contribute to the increase in budget from 2022 to 2023.

TABLE 4 – 2022 AND 2023 ANNUAL CONSERVATION PLANS

	2022	2023
Low-Income Programs	$ 1,520,092	$ 2,191,766
Named Communities	$ 2,000,000	$ 2,000,000
Low-Income Admin	$ 456,028	$ 957,530
Residential Programs	$ 897,604	$ 1,618,250
Multifamily Weatherization	$ 111,625	$ 309,339
Multifamily Direct Install	$ 706,250	$ 633,595
Always-On	$ 726,000	$ 1,687,500
Residential Midstream	$ 0	$ 157,812
Commercial/Industrial Programs	$ 8,353,981	$ 12,417,714
Commercial/Industrial Midstream	$ 0	$ 110,381
Energy-Efficiency Pilot Programs	$ 1,000,000	$ 1,000,000
Third Party Costs	$ 527,034	$ 1,144,056
General Admin, Labor, and Program Support	$ 3,634,420	$ 3,716,746
CPA and EM&V Engagements	$ 390,369	$ 278,645
Northwest Energy Efficiency Alliance	$ 1,358,000	$ 1,358,000
Total	**$ 21,681,403**	**$ 29,581,334**

Clean Energy Transformation Act Target

The Clean Energy Implementation Plan (CEIP) outlines Avista's path toward its goal of making the transition to clean energy in compliance with Clean Energy Transformation Act (CETA). CETA outlines requirements for utilities in Washington to eliminate coal-fired resources from electric power supply by 2025, attain a carbon neutral electric supply by 2030, and achieve 100 percent non-emitting electricity supply by 2045. Along with these goals, specific targets are to be set for Energy Efficiency Programs.

Avista's specific target is informed by its *IRP*, which is also used to set its biennial target for the EIA. There are, however, differences in these target calculations. The CEIP encompasses 2023-25, a four-year period which is well past the biennial period of 2022-23. To account for this, Avista extended its pro rata share of savings over the 10-year period and applied it to a four-year span. This methodology is consistent with the approach used for EIA target setting. Avista then included the decoupling commitment of an additional 5 percent on top of that pro rata amount. However, since the intent of this target focuses on all available conservation, and because it doesn't include a penalizable target, all available conservation is included in the CEIP target, and the target is not adjusted for NEEA savings as shown with the EIA target. The resulting target for the four-year period is 213,289 MWh.

TABLE 5 – CLEAN ENERGY IMPLEMENTATION PLAN SPECIFIC TARGET

CEIP Energy Efficiency Specific Target (MWh)	
CPA Pro-Rata Share (4-year)	203,132
Decoupling Threshold (5% of Target)	10,157
Total CEIP Energy Efficiency Target	**213,289**

Per the requirements of the CEIP, Avista developed Customer Benefit Indicators (CBIs) and associated metrics as a measurement of impact for the communities it serves. These metrics are not based solely on energy conservation but also on ensuring that customers in named communities equitably benefit from the transition to clean energy. The *ACP* provides details pertaining to the programs developed that will support Avista's CEIP efforts for the 2023-25 period.

CLEAN ENERGY TRANSFORMATION ACT

CLEAN ENERGY TRANSFORMATION ACT

Senate Bill (SB) 5116, otherwise known as the Clean Energy Transformation Act, was approved by the Washington State Legislature in 2019. Avista was the first investor-owned utility in the state to file its *Clean Energy Implementation Plan* in October of 2021. The plan was approved on June 16, 2022.

Avista has continued to engage its Equity Advisory Group (EAG) to provide input and guidance into Avista's CETA activities and to help refine the utility's CBIs. In 2023, the EAG will play a more direct role in advising best practices for program outreach, and help the utility prioritize funding for community-based projects.

In 2021, Empower Dataworks assessed Avista's progress towards helping customers reduce their energy burden. This Energy Burden Assessment found that Avista's funding levels for energy assistance programs are sufficient relative to the need for energy assistance, but recommended that Avista target programs to customers who have the highest energy burden. Avista has invested significant resources in 2022 to develop a CETA database that includes an estimated energy burden for all customers who are members of named communities in the company's service territory. Avista has piloted several energy burden reduction programs in 2022, and the company looks forward to leveraging what was learned from these pilots to continue to refocus programs on lowering customers' energy burden in 2023.

New Approaches to Reaching Customers in Named Communities

Avista is making a significant commitment during the 2023-25 CEIP implementation period to pursuing new methods for reaching customers in Named Communities. These programs will focus on lowering customers' energy burden – while also creating space for community input, advocacy, and ownership – respecting that customers best understand the needs of their own communities.

Avista is proposing to provide funding toward new named community projects in the amount of $2 million annually over the CEIP four-year period. This body of funding will be used specifically to address obstacles that have been barriers to participation in efficiency programs for members of Named Communities. Program goals will focus primarily on energy burden reductions, but will also aim for air quality improvements, health and safety benefits, and enhancing reliability for customers. To allow for this plan, Avista had made modifications to its tariff rider to allow flexibility in its program design, and make it possible to offer fully funded conservation solutions for a broader group of customers than Avista has historically reached with its fully funded programs for low-income customers.[1] The sections following describe each program Avista plans to fund under this initiative. For each of these programs, Avista plans to offer a mix of rebates and fully-funded measures. However, this mix may change, as Avista further engages with customers and with the EAG to maximize program benefits.

1) See Docket No. UE-210399 for these revisions to Avista's tariff Schedule 90.

Community Identified Projects

Estimated Annual Budget: $500,000

This program will use a modified Participatory Budgeting Process[2] in which Avista will fund community projects selected by the EAG. Community members in Avista's Washington service territory can nominate projects for consideration by the EAG, and although Avista will help facilitate and support this process by assisting the EAG in the development of selection criteria and considering input from the Energy Efficiency Advisory Group (EEAG) to inform the process, the EAG would ultimately be responsible for project selection. The nomination and selection process will be developed beginning in Q1 of 2023, with a goal of initial project selection by mid-2023. Avista sees this program as a way to empower community members, as represented by the EAG, to make changes where they see the most need.

Multifamily Building Split Incentives

Estimated Annual Budget: $750,000

Many customers with high energy burdens are renters. Therefore, the problem of split incentives in multifamily scenarios needs to be addressed. In an effort to tackle this issue and encourage landlords to make efficiency investments in their rental units, Avista plans to pilot incentives for landlords who own multifamily rental properties in named communities. The company is proposing a focused approach that could include the following elements:

- Full funding of insulation measures such as attic, wall, and floor without min/max *R value* requirements for existing insulation
- A higher incentive for windows and doors
- A 50 percent funding of total cost incentive for ductless heat pumps, water heaters, and thermostats
- Directing its Multifamily Direct Install Program, which installs low-cost measures in multifamily units, toward buildings in Named Communities.

To expedite adoption of this effort, Avista will not require that insulation, windows, and doors be installed by a contractor if property owners are adequately capable of performing the installation correctly. Avista will work with its engineering team and its stakeholder group to create a list of requirements that include proper sealing, distribution of blow-in insulation, and other requirements to ensure that projects are successful.

2) Participatory budgeting is a democratic process in which community members decided how to spend part of a budget.

Table 6 summarizes the incentives made available for the multifamily segment.

TABLE 6 – MULTIFAMILY BUILDING SPLIT INCENTIVES FUNDING LEVELS

Resources/Measures	Per-Unit Funding
Attic Insulation	Fully Fund
Floor Insulation	Fully Fund
Wall Insulation	Fully Fund
Insulated Doors	Fully Fund
Low-E Storm Windows	Rebate
Low-E Windows	Rebate
Line Voltage Thermostats	Rebate
Ductless Heat Pumps	Rebate
Heat Pump Water Heaters	Rebate
Direct-Installation LED, Showerheads, Aerator	Fully Fund

Health and Safety for Manufactured and Mobile Homes

Estimated Annual Budget: $400,000

Avista has a strong history of working with community partners to address energy needs in customers' homes, and addressing health and safety matters has been an integral part of those efforts. To the extent possible, Avista has funded repairs to homes that are associated with the installation of efficiency-related equipment. For this program, Avista is proposing that health and safety funds be made available to manufactured and mobile home communities without the requirement that the repairs be made in association with an energy efficiency project. Rather, the qualifying metric for this program will be if the repair leads to energy burden reductions. This modification will address untreated homes, owned or rented by Avista customers, that suffer from a significant shell, function, or structure deficiency and that may not otherwise have been treated with measures due to the previous qualification constraints.

Avista is allocating an annual amount of $400,000 to be reserved for these projects. The company will work through appropriate considerations for customers who lease mobile homes from another party, in addition to working with its marketing team on successful approaches for engaging communities and collaborating with its EAG to identify geographic areas on which to focus outreach efforts. While health and safety will be the emphasis of this program, Avista will also offer insulation measures for dwellings that are in an extreme state of disrepair or that currently have inadequate insulation levels.

TABLE 7 – HEALTH AND SAFETY FOR MANUFACTURED AND MOBILE HOMES FUNDING LEVELS

Resources/Measures	Per-Unit Funding
Health and Safety	Fully Fund
Ductless Heat Pumps	Rebate
Attic Insulation	Fully Fund
Floor Insulation	Fully Fund
Wall Insulation	Fully Fund
Insulated Doors	Fully Fund
Low-E Storm Windows	Fully Fund
Low-E Windows	Fully Fund
Heat Pump Water Heaters	Rebate

Single-Family Weatherization

Estimated Annual Budget: $250,000

The single-family segment represents the largest number of customers with an energy burden requirement. For these customers, resources are available through CAP agencies for those who are income-qualified. Avista's Low-Income Program provides full funding for numerous measures; it is, however, intended to serve all communities.

For customers within Named Communities, Avista will provide full funding for insulation measures and higher incentive amounts for doors and windows, which is consistent with its Low-Income Program. This segment does not, however, have an income qualification requirement. Avista will also explore ways to link this program offering with its On-Bill Repayment (OBR) Program, which provides low-interest financing for energy-efficient equipment.

Program design and distribution of funds have yet to be determined. Avista intends to work with its EAG and EEAG to further develop the design of the Single-Family Weatherization Program.

TABLE 8 – SINGLE-FAMILY WEATHERIZATION FUNDING LEVELS

Resources/Measures
Attic Insulation
Floor Insulation
Wall Insulation
Insulated Doors
Low-E Storm Windows
Low-E Windows

Incentives for Businesses and Organizations Serving Named Communities

Estimated Annual Budget: $100,000

Avista will invest in making efficiency improvements for nonprofit community organizations, religious organizations, and businesses that serve members of Named Communities. This program aligns with feedback received from the EAG: that customers would like to see more neighborhood-level investments, which, in turn, may make more resources available to provide additional benefits to the communities that these businesses and organizations serve. The program could provide site-specific incentives at a higher rate than currently available and offer building audits or other services such as grid integration through the Connected Communities Project described later in this plan (page 79). The program may also offer other distributed energy projects that are identified as priorities in the Named Communities Investment Fund.

TABLE 9 – INCENTIVES FOR BUSINESSES AND ORGANIZATIONS SERVING NAMED COMMUNITIES FUNDING LEVELS

Resources/Measures	Per-Unit Funding
Custom Projects	Rebate
Floor Insulation	Rebate
Wall Insulation	Rebate
Insulated Doors	Rebate
Low-E Storm Windows	Rebate
Low-E Windows	Rebate

Initially, Avista will aim to fully distribute funding for each of the new offerings listed above in accordance with the estimated budget for each. When excess funds are available in one program, Avista may elect to transfer funds to another program to support other identified needs. Funds may be borrowed from the second year of the biennium if necessary (e.g., 2024 funding, up to the allotted $2,000,000, can be used in 2023 if funds are exhausted in a given program area).

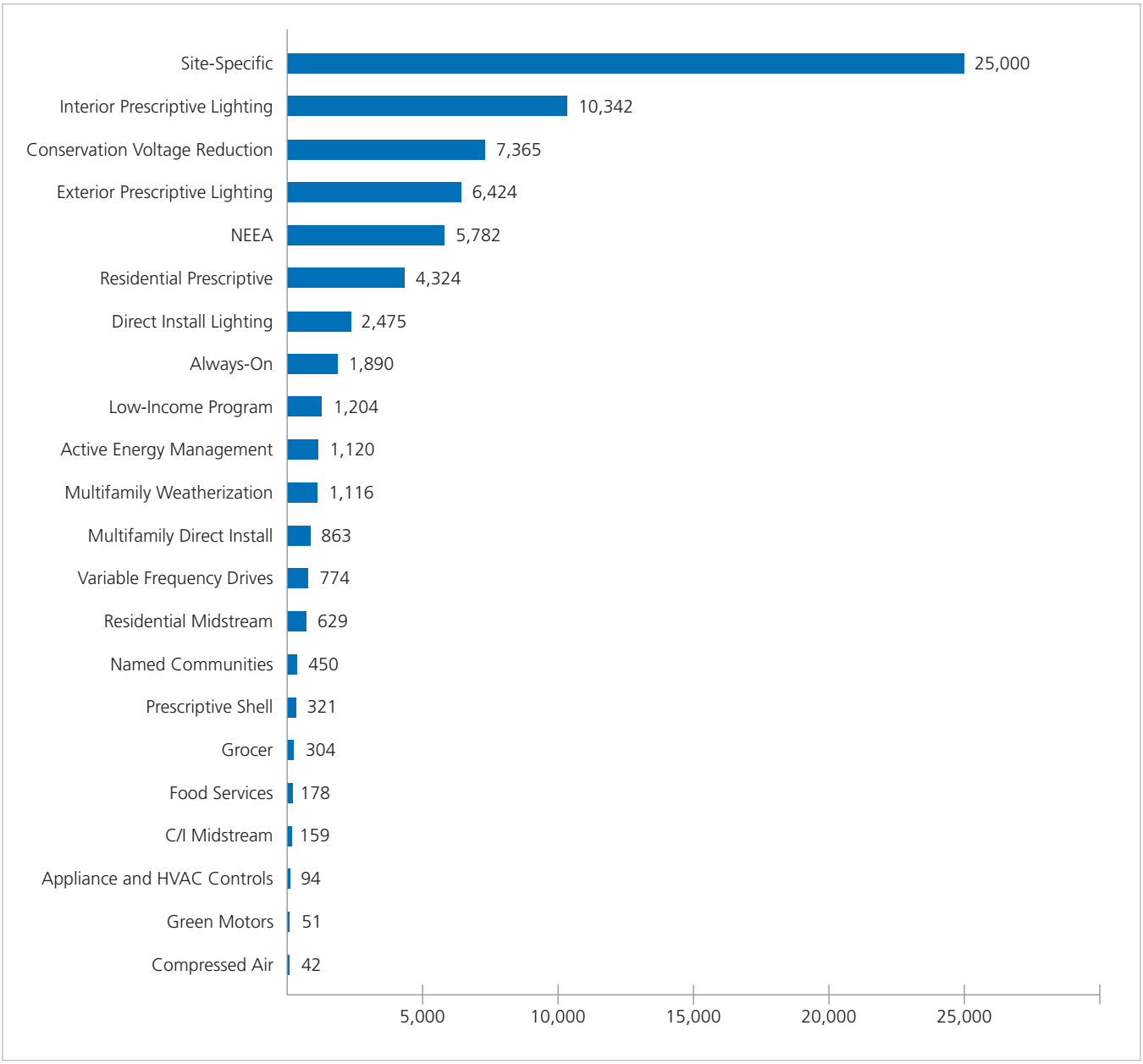
ENERGY EFFICIENCY PORTFOLIO OVERVIEW

ENERGY EFFICIENCY PORTFOLIO OVERVIEW

Avista's energy efficiency portfolio is composed of residential, low-income, and commercial/industrial programs.

For 2023, the company anticipates approximately 70,878 MWh of I-937 qualified savings from its program offerings. These savings are derived from utility-specific conservation, including regional efforts from NEEA and CVR. Figure 3 illustrates the major categories from which those savings are achieved.

FIGURE 3 – SAVINGS FROM ENERGY EFFICIENCY PROGRAMS (MWH)



Overall Energy Efficiency Budget Projections

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 timely enough to maintain a materially neutral tariff rider balance. The budget is thus 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 2023 budget projection is summarized in Table 10, which includes elements of the energy efficiency budget that have been designated as "supplemental" to indicate program elements that are not included in the cost-effectiveness calculation. These supplemental costs include NEEA funding, as well as funds for third-party CPA and EM&V studies.

TABLE 10 – ENERGY EFFICIENCY BUDGET SUMMARY

	2023 Washington Electric Budget	Supplemental Budget	Non-Supplemental Budget
Total Incentives and Direct Benefit to Customer (DBtC)	$ 21,770,656	$ 0	$ 21,770,656
Program Labor/DBtC	$ 1,905,687	$ 0	$ 1,905,687
Pilot Programs	$ 1,000,000	$ 0	$ 1,000,000
Total Non-Labor/Non-Incentive	$ 4,904,991	$ 1,636,645	$ 3,268,346
Total	**$ 29,581,334**	**$ 1,636,645**	**$ 27,944,689**

Avista continues to track the proportion of total utility expenditures returned to customers in the form of direct incentives and benefits as a metric to guide the company toward improved administrative efficiencies.

The amount included in the direct benefit figure includes not only the incentives paid to customers through monetary incentives for energy efficiency programs, but also the engineering time spent on customized projects for energy efficiency participants. While labor costs are generally not included as a direct customer benefits, the inclusion of the energy efficiency engineering team in an energy efficiency project provides customers with access to a valuable resource for identifying and implementing savings measures at their home or business.

TABLE 11 – PROPORTION OF FUNDS RETURNED TO CUSTOMERS THROUGH DIRECT BENEFITS

	Direct Benefit to Customer
Utility Expenditures Returned to Customers via Direct Benefits	77%

Program-by-program details of the expected incentive expenditures for 2023 are provided in greater detail in Table 12.

Direct-incentive expenditures represent the estimated incentives that will be paid to customers directly or indirectly for participation in energy efficiency programs. The overall level of expense is highly correlated to programs' throughput and energy acquisition and, based on customer participation, the amounts are subject to change. Note that for some active programs, the benefit of the program offering is not based on the incentive value, but rather on identifying opportunities for energy efficiency projects. For those projects, any resulting incentive is included with its native program.

TABLE 12 – CUSTOMER DIRECT INCENTIVE EXPENDITURE DETAIL

Energy Efficiency Program	Direct Incentive Expenditures
Low-Income and Equity Programs	
Low-Income	$ 2,191,766
Named Communities Investment Fund	$ 2,000,000
Total Low-Income and Equity Incentives	**$ 4,191,766**
Residential Programs	
Residential Prescriptive	$ 1,618,250
Multifamily Direct Install	$ 633,595
Multifamily Weatherization	$ 309,339
Residential Midstream	$ 157,812
Always-On	$ 1,687,500
Total Residential Incentives	**$ 4,406,496**
Commercial/Industrial Programs	
Interior Prescriptive Lighting	$ 2,628,350
Exterior Prescriptive Lighting	$ 1,669,000
Direct Install Lighting	$ 1,237,500
Site-Specific	$ 6,500,000
Prescriptive Shell	$ 165,000
Commercial/Industrial Midstream	$ 110,381
Green Motors	$ 5,710
Variable Frequency Drives	$ 120,000
Compressed Air	$ 10,080
Grocer	$ 9,170
Food Services	$ 36,904
Appliance and HVAC Controls	$ 36,000
Active Energy Management	$ 0
Total Commercial/Industrial Incentives	**$ 12,528,095**
Total of All Incentives	**$ 21,126,357**

Non-incentive expenses, including both non-supplemental and supplemental expenditures, are detailed to a lower level of aggregation and broken out by portfolio in Table 13. The expenses are allocated to programs based on the percentage of overall avoided cost achieved through each program's energy efficiency achievements. An exception to this allocation methodology is that third-party non-incentive payments are directly attributable to the programs they originate from.

TABLE 13 – NON-INCENTIVE UTILITY EXPENSE DETAIL

Expense Type	Washington Electric Portfolio	Supplemental Budget	Non-Supplemental Budget
Third-Party Non-Incentive Payments	$ 2,101,586	$ 0	$ 2,101,586
Labor	$ 2,549,986	$ 0	$ 2,549,986
EM&V	$ 253,445	$ 253,445	$ 0
Memberships	$ 47,250	$ 0	$ 47,250
Outreach	$ 126,000	$ 0	$ 126,000
Marketing	$ 504,000	$ 0	$ 504,000
Training/Travel	$ 6,300	$ 0	$ 6,300
Regulatory	$ 3,150	$ 0	$ 3,150
Scott Morris Center Lease	$ 83,160	$ 0	$ 83,160
Studies and Research	$ 63,000	$ 0	$ 63,000
Software	$ 144,900	$ 0	$ 144,900
Conservation Potential Assessment	$ 25,200	$ 25,200	$ 0
General Implementation	$ 189,000	$ 0	$ 189,000
Pilot Programs	$ 1,000,000	$ 0	$ 1,000,000
NEEA	$ 1,358,000	$ 1,358,000	$ 0
Total	**$ 8,454,977**	**$ 1,636,645**	**$ 6,818,332**

* The Scott Morris Center is used in conjunction with pilot programs including Active Energy Management, the Tool Lending Library and is also intended to be a meeting place for public workshops and other learning resources.

† Software expenses have been estimated for the continued implementation of the iEnergy platform and anticipated enhancements to our existing platforms.

Residential Portfolio Overview

Avista's residential portfolio comprises 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 other interventions such as a Multifamily Direct Install Program, and supplemented by educational and outreach efforts such as a residential home energy audit. While the audit program is instrumental in identifying the need for weatherization, the associated savings from those efforts are captured within the Residential Shell Program.

The manufactured home segment is an important component within the residential portfolio, and the company's 2023 program is designed to provide incentives through the ENERGY STAR Manufactured Homes Program. ENERGY STAR Certified Manufactured Homes are required to be Northwest Energy Efficiency Manufactured (NEEM) Certified.

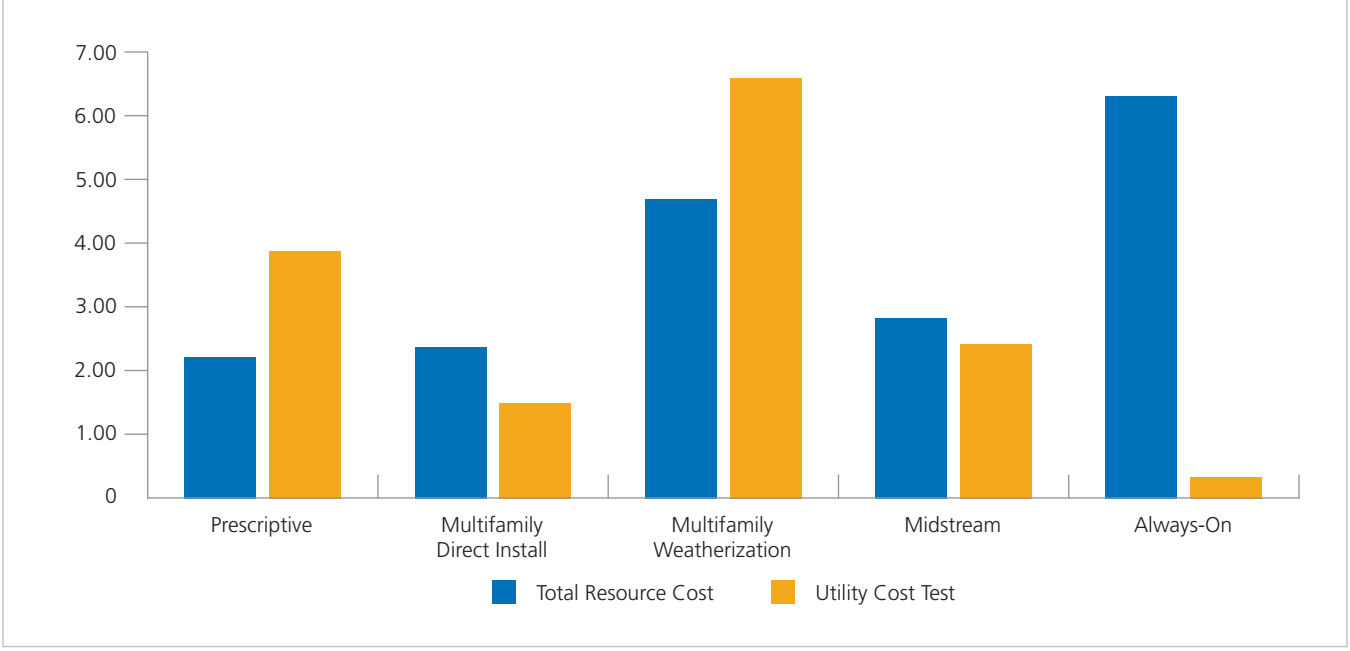
For 2023, Avista anticipates approximately 8,822,049 MWh to be achieved through residential programs with an expected spend of $5,341,234. Table 14 summarizes the 2023 residential program estimates.

TABLE 14 – RESIDENTIAL PROGRAMS OVERVIEW

Residential Programs	Electric Program Savings (kWh)	Expected Spend
ENERGY STAR Homes Program	151,106	$ 177,044
Multifamily Direct Install Program	862,752	$ 686,472
HVAC Program	2,348,692	$ 807,549
Always-On Behavioral Pilot	1,890,000	$ 1,773,059
Water Heat Program	658,775	$ 275,584
Shell Program	1,064,000	$ 718,381
Midstream	629,132	$ 374,657
Multifamily Weatherization	1,115,961	$ 473,951
Appliances	101,632	$ 54,536
Total Residential	**8,822,049**	**$ 5,341,234**

The program-by-program cost-effectiveness of the portfolio is graphically represented in Figure 4.

FIGURE 4 – RESIDENTIAL PROGRAMS COST-EFFECTIVENESS



Cost-Test	Prescriptive	Multifamily Direct Install	Multifamily Weatherization	Midstream	Always-On
Total Resource Cost	2.13	2.30	4.74	2.87	6.26
Utility Cost Test	3.89	1.47	6.62	2.34	0.27

Residential Programs

Residential Multifamily Direct Install Program

Program Description

The Multifamily Direct Install Program partners with SBW Consulting to provide direct-installation measures to multifamily residences of five units or more. The program targets a hard-to-reach market of customers who rent rather than own their property, as well as property managers and owners. This program offers direct-installation measures to owners of multifamily buildings in order to make energy efficiency improvements and help tenants with energy costs.

Field installers coordinate with property managers of multifamily complexes to directly install energy-saving measures in tenant units. Installers also audit the complex for any eligible supplemental common-area lighting measures. Information about potential common-area lighting projects is passed on to lighting vendors who are contracted to work in various areas. Lighting contractors communicate with the property managers to audit and put together project data. Individual common-area lighting projects are completed after approvals by the building owner, Avista, and SBW Consulting.

The implementation of this program was paused in March of 2020 due to the COVID-19 pandemic and resumed in April of 2022.

Program Manager

Greta Zink

TABLE 15 – RESIDENTIAL MULTIFAMILY DIRECT INSTALL PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		862,752
Direct Benefit to Customer	$	633,595
Non-Incentive Utility Costs	$	52,876
Total Costs	$	686,472
Non-Energy Impacts	$	424,497
Cost-Effectiveness		
Total Resource Cost		2.30
Utility Cost Test		1.47

Program Eligibility

Multifamily complexes with Avista electric service are eligible for this program. SBW Consulting contacts property owners and managers to gauge interest and schedule audits of facilities and installation of tenant measures. At the time of the audit, it is determined whether there are also common-area lighting fixtures that might be eligible for the program. If common-area lighting is identified, it is passed to lighting contractors to put together a proposal for eligible fixtures, and installation is scheduled after approval. Table 16 shows the estimated annual savings and the value of the direct installation (direct benefit to customer, or DBtC) for the Multifamily Direct Install Program. DBtC amounts represent the total cost of the program outside of allocated program administrative costs.

TABLE 16 – RESIDENTIAL MULTIFAMILY DIRECT INSTALL PROGRAM MEASURES AND DIRECT BENEFIT TO CUSTOMER

	Projected Participation	Annual Savings	Annual DBtC
Direct Installation – LED lighting and faucet aerators	3,854 Homes	862,752 kWh	$ 633,595

Products included in the direct-installation program include a site audit, various LED lamps, energy-efficient faucet aerators, and vending misers for common spaces.

Residential Prescriptive Programs

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. In prior program years, Avista required this to have been submitted within 90 days of project completion, but for our 2023 program year the company is shifting to a 120-day requirement to provide more flexibility for customers. Customers can submit this form in hard copy, with several prescriptive measures also available to submit online at myavista.com.

Residential prescriptive programs are designed to provide rebates to single-family homes up to a fourplex. For multifamily (fiveplex or larger), owners and developers may choose to treat the entire complex with an efficiency improvement through the Commercial Site-Specific Program or single units with the multifamily program prescriptive approach.

Prescriptive programs have a strong presence and coordination with regional efforts such as those offered by NEEA. There are currently 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 NEEA market transformation ventures and will continue to do so where opportunities for the application of these programs are cost-effective options.

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 on 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. Specific plans for Avista's prescriptive programs are enumerated in this section.

During 2023, Avista will be developing a midstream appliance and other energy efficient measures program with the assistance of a third-party developer and implementer. The goal of this program is to garner missed energy efficiency savings opportunities by steering the contractor/customer to more energy-efficient equipment options and by providing instant rebates at the distributor level and/or available at retail outlets. The contractors will use the rebates as one of their sales marketing tools. The Midstream Program will be communicated to customers through Avista's website and other external marketing efforts.

Residential Appliance Program

Program Description

The Residential Appliance Program is intended to motivate customers to purchase appliances that demonstrate higher than average energy efficient performance. It offers incentives for purchasing appliances that meet ENERGY STAR criteria for efficiency. ENERGY STAR acts as an independent third party, maintaining a website of qualified products and verifying the performance of various appliances. Customers are asked to provide an ENERGY STAR certificate for each appliance, along with an application and purchase documentation.

Program Metrics

TABLE 17 – RESIDENTIAL APPLIANCE PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		101,632
Incentives	$	42,250
Non-Incentive Utility Costs	$	12,286
Total Costs	$	54,536
Non-Energy Impacts	$	88,719
Cost-Effectiveness		
Total Resource Cost		2.04
Utility Cost Test		2.23

Program Eligibility

All Washington residential electric customers (Rate Schedule 1) who purchase ENERGY STAR certified clothes washers, dryers, refrigerators, and freezers are eligible for participation.

TABLE 18 – RESIDENTIAL APPLIANCE PROGRAM MEASURES AND INCENTIVES

	Projected Participation	Per-Unit kWh Savings	Incentive
Standard Size Refrigerator and Refrigerator-Freezer – Bottom-Mounted Freezer – ESME	250 Units	124	$ 100
Standard Size Freezer – upright – ESME	20 Units	67	$ 50
ENERGY STAR Washer	150 Units	120	$ 50
ENERGY STAR Dryer	175 Units	293	$ 50

Incentive Revisions

For 2023, Avista revised its residential appliance offerings to allow for both top- and front-load washers to be eligible for the incentive program.

Residential ENERGY STAR Manufactured Homes Program

Program Description

The ENERGY STAR Certified Manufactured Homes Program is intended to encourage customers who are buying a new manufactured home to invest in an energy-efficient product. The ENERGY STAR designation allows buyers easily identify manufactured homes that are holistically more energy efficient than standard construction. Over time, code requirements have become more rigorous and builder practices have become more efficient. The ENERGY STAR program has modified its guidelines to ensure that certified manufactured homes represent a meaningful improvement over non-certified manufactured homes. ENERGY STAR has partnered with the Northwest Energy Efficient Manufactured Housing Program (NEEM) to provide independent, third-party certification of manufactured homes. NEEM's process includes inspections at manufacturing plants to ensure that homes are built to specification.

Program Manager

Michele Drake

TABLE 19 – RESIDENTIAL ENERGY STAR MANUFACTURED HOMES PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		151,106
Incentives	$	50,000
Non-Incentive Utility Costs	$	127,044
Total Costs	$	177,044
Non-Energy Impacts	$	0
Cost-Effectiveness		
Total Resource Cost		1.66
Utility Cost Test		2.22

Program Eligibility

Eligibility includes all Avista residential electric customers (Rate Schedule 1) who purchase a certified ENERGY STAR or ENERGY STAR with NEEM+ manufactured home. This rebate may not be combined with other Avista individual measure rebate offers (e.g. high-efficiency water heaters).

TABLE 20 – RESIDENTIAL ENERGY STAR HOMES PROGRAM MEASURES AND INCENTIVES

	Projected Participation	Per-Unit kWh Savings	Incentive
ENERGY STAR Certified Manufactured Homes	50 Units	3,022	$ 1,000

Program Revisions

Beginning in 2023, the prescriptive program will recognize the efficiency distinction between homes certified as ENERGY STAR and ENERGY STAR with NEEM+. The NEEM+ certification criteria includes additional efficiency measures such as programmable thermostats, improved windows, building wrap, and window flashing. The new measure is intended to motivate customers to choose the highest efficiency manufactured home available. Projected participation, per-kWh savings, and incentive amounts for this new measure will be developed in late 2022.

Residential HVAC Program

Program Description

The Residential HVAC Program encourages residential customers to select high-efficiency equipment when making energy upgrades to their home. This prescriptive rebate approach issues payment to the customer after the measure has been installed. Energy efficiency marketing efforts build considerable awareness of opportunities in the home and drive customers to the website for rebate information. Vendors generate participation in the program using rebates as a sales tool for their services. Utility website promotion, vendor training, and presentations at various customer events throughout the year are some of the other communication methods that encourage program participation. Avista will continue to offer traditional prescriptive rebates for all HVAC equipment in early 2023. Later in the year, air source heat pumps will transition to the Midstream Program rebate model.

Program Manager

Michele Drake

Program Metrics

Program metrics reflect the anticipated transition of air source heat pumps to the Midstream Program rebate model in 2023.

TABLE 21 – RESIDENTIAL HVAC PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		2,348,692
Incentives	$	611,000
Non-Incentive Utility Costs	$	196,549
Total Costs	$	807,549
Non-Energy Impacts	$	577,429
Cost-Effectiveness		
Total Resource Cost		1.46
Utility Cost Test		3.10

Program Eligibility and Incentives

In 2023, Avista will remove usage as an eligibility requirement for HVAC measures. This change will remove barriers and ensure all customers have equal access to efficiency rebates. Following this change, eligibility will include all Washington residential electric customers (Rate Schedule 1) who install qualified HVAC measures.

TABLE 22 – RESIDENTIAL HVAC PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
Smart Thermostats – DIY	1,000	Units	749	$	150
Smart Thermostats – Contractor-Installed	1,000	Units	749	$	200
Air Source Heat Pump	100	Units	2,842	$	1,000
Ductless Heat Pumps (with existing forced air furnace)	30	Units	908	$	700
Ductless Heat Pumps (displace zonal)	200	Units	2,698	$	700

Incentive Revisions

To increase participation, Avista will increase incentives for thermostats and ductless heat pumps in 2023. Incentives will continue for ductless heat pumps that accompanied by a forced air furnace. These incentives encourage customers to install the product on less efficient existing equipment to realize energy savings and lower costs. Some program measures will transition to the Midstream Program rebate model in 2023.

TABLE 23 – RESIDENTIAL HVAC PROGRAM INCENTIVE REVISIONS FOR 2023

Measure Description	2022	2023
Smart Thermostats – DIY	$ 125	$ 150
Smart Thermostats – Contractor-Installed	$ 150	$ 200

Residential Water Heater Program

Program Description

This program is intended to incentivize customers who are interested in purchasing water heaters to choose a high-efficiency heat pump water heater. Efficiencies for water-heating equipment are verified according to the third party Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Avista will continue existing rebates for residential water heat in early 2023. Later in 2023, the residential water heat rebates will transition to the Midstream Program.

Program Manager

Michele Drake

TABLE 24 – RESIDENTIAL WATER HEAT PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		658,775
Incentives	$	250,000
Non-Incentive Utility Costs	$	25,584
Total Costs	$	275,584
Non-Energy Impacts	$	14,891
Cost-Effectiveness		
Total Resource Cost		2.14
Utility Cost Test		2.87

Program Eligibility and Incentives

Eligibility includes all Washington residential electric customers (Rate Schedule 1) who purchase qualified water heating equipment.

TABLE 25 – RESIDENTIAL WATER HEAT PROGRAM MEASURES AND INCENTIVES

	Projected Participation	Per-Unit kWh Savings	Incentive
Heat Pump Water Heater	500 Units	1,318	$ 500

Residential Shell Program

Program Description

The Residential Shell Program encourages customers to improve their home's shell or exterior envelope with upgrades to windows, storm windows, and insulation. Energy efficiency marketing efforts build considerable awareness of opportunities in the home and drive customers to the website for rebate information. Vendors generate participation in the program using rebates as a sales tool for their services. Utility website promotion, vendor training, and presentations at various customer events throughout the year are some of the other communication methods that encourage program participation.

Program Manager

Michele Drake

TABLE 26 – RESIDENTIAL SHELL PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		1,064,000
Incentives	$	665,000
Non-Incentive Utility Costs	$	53,381
Total Costs	$	718,381
Non-Energy Impacts	$	597,674
Cost-Effectiveness		
Total Resource Cost		3.14
Utility Cost Test		5.70

Program Eligibility and Incentives

Beginning in 2023, envelope measures will not require minimum usage as a prerequisite for program participation. Eligibility will include all Avista residential electric customers (Rate Schedule 1) who install qualified materials and meet all program requirements for installation. This change, along with increased tiers and new measures for self-install windows and storm windows, will remove barriers for customer participation.

TABLE 27 – RESIDENTIAL SHELL PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
Insulated Door R2.5-R5 HZ2 Zonal (ENERGY STAR-Rated or Insulated R5)	300	Units	800.00	$	100.00
Wall Insulation	60,000	Sq. Ft.	1.42 per Sq. Ft.	$	1.50 per Sq. Ft.
Attic <R11-R49/R38	60,000	Sq. Ft.	1.86 per Sq. Ft.	$	1.50 per Sq. Ft.
Floor <R11-R19	30,000	Sq. Ft.	0.69 per Sq. Ft.	$	1.00 per Sq. Ft.
Floor <R11 to R30	3,000	Sq. Ft.	0.78 per Sq. Ft.	$	1.50 per Sq. Ft.
Windows	20,000	Sq. Ft.	11.13 per Sq. Ft.	$	10.00 per Sq. Ft.
Windows – DIY	30,000	Sq. Ft.	11.13 per Sq. Ft.	$	5.00 per Sq. Ft.
Storm Windows	5,000	Sq. Ft.	6.17 per Sq. Ft.	$	5.00 per Sq. Ft.
Storm Windows – DIY	5,000	Sq. Ft.	6.17 per Sq. Ft.	$	4.00 per Sq. Ft.

Incentive Revisions

To reach more customers and remove barriers to participation, Avista will implement two key changes to the Shell Program for 2023. First, Avista is removing the previous minimum-use requirements for participation. Second, Avista is implementing a do-it-yourself approach for windows measures. These program changes will provide more paths for customers to make energy efficiency upgrades to their homes.

Avista has modified its incentive structure to include self-installed windows in order to address high installation costs for equipment. Incentives for windows will be $10 per square foot for contractor-installed and $5 per square foot for self-installed. In addition, the incentive for insulation has increased from $0.75 a square foot to $1.50 to further promote adequate shell performance in homes.

TABLE 28 – RESIDENTIAL SHELL INCENTIVE REVISIONS FOR 2023

Measure Description	2022	2023
Wall Insulation	$ 0.75 per Sq. Ft.	$ 1.50 per Sq. Ft.
Attic <R11-R49/R38	$ 0.75 per Sq. Ft.	$ 1.50 per Sq. Ft.
Floor <R11-R19	$ 0.75 per Sq. Ft.	$ 1.50 per Sq. Ft.
Floor <R11 to R30	$ 0.75 per Sq. Ft.	$ 1.50 per Sq. Ft.
Windows	$ 4.00 per Sq. Ft.	$ 10.00 per Sq. Ft.
Windows – DIY	N/A	$ 5.00 per Sq. Ft.
Storm Windows	$ 4.00 per Sq. Ft.	$ 5.00 per Sq. Ft.
Storm Windows – DIY	N/A	$ 4.00 per Sq. Ft.

Multifamily Weatherization

Program Description

After previous efforts to include small homes in this program resulted in customer confusion, the program will return to focusing on multifamily properties in 2023. For multifamily residences (fiveplex or larger), owners and developers may choose to treat the entire complex with an efficiency improvement through the Commercial Site-Specific Program or single units with the multifamily program prescriptive approach. This program includes line voltage thermostats, which are not considered a weatherization measure. However, these thermostats give customers more control over their heating usage and are therefore included as an offering within the program.

Program Manager

Michele Drake

TABLE 29 – MULTIFAMILY WEATHERIZATION PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		1,115,961
Incentives	$	309,339
Non-Incentive Utility Costs	$	164,612
Total Costs	$	473,951
Non-Energy Impacts	$	2,090,690
Cost-Effectiveness		
Total Resource Cost		4.74
Utility Cost Test		6.62

Program Eligibility

Eligibility includes all Washington residential electric customers (Rate Schedule 1) who own multifamily properties of five units or more and install qualified equipment. Renters who install qualified equipment with a landlord's permission are also eligible.

TABLE 30 – MULTIFAMILY WEATHERIZATION PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
Duct Sealing	100	Units	888.03	$	230.89
Wall Insulation R0-R11 HZ2 Zonal	1,000	Sq. Ft.	2.72 per Sq. Ft.	$	1.50 per Sq. Ft.
Insulated Door R2.5-R5 HZ2 Zonal (ENERGY STAR-Rated or Insulated R5)	500	Units	800.00	$	100.00
Line Voltage Communicating Thermostat	250	Units	76.17	$	20.00
Ductless Heat Pump 9.0 or greater with resistance Heat	100	Units	1,300.00	$	525.00
Smart Thermostats – DIY	100	Units	650.00	$	150.00
Smart Thermostats – Contractor-Installed	100	Units	650.00	$	200.00
Air Source Heat Pump	20	Units	3,663.18	$	1,000.00
Heat Pump Water Heater	50	Units	1,318.00	$	500.00
Attic <R11-R49/R38	10,000	Sq. Ft.	1.02 per Sq. Ft.	$	1.50 per Sq. Ft.
Floor R0-R19	1,000	Sq. Ft.	1.30 per Sq. Ft.	$	1.00 per Sq. Ft.
Floor R0 to R30	2,500	Sq. Ft.	1.74 per Sq. Ft.	$	1.50 per Sq. Ft.
Windows – Single/Double to U22	2,000	Sq. Ft.	27.94 per Sq. Ft.	$	10.00 per Sq. Ft.
Windows – Single/Double to U30 – DIY	3,500	Sq. Ft.	24.44 per Sq. Ft.	$	5.00 per Sq. Ft.
Storm Windows – Single/Double to U22	500	Sq. Ft.	24.48 per Sq. Ft.	$	10.00 per Sq. Ft.
Storm Windows – Single/Double to U22 – DIY	1,500	Sq. Ft.	24.48 per Sq. Ft.	$	5.00 per Sq. Ft.

Incentive revisions for 2023 followed the changes provided for the residential prescriptive program in order to provide a fair distribution of benefits to customers.

TABLE 31 – MULTIFAMILY INCENTIVE REVISIONS FOR 2023

Measure Description	2022		2023	
Wall Insulation R0-R11 HZ2 Zonal	$	0.75 per Sq. Ft.	$	1.50 per Sq. Ft.
Attic <R11-R49/R38	$	0.75 per Sq. Ft.	$	1.50 per Sq. Ft.
Floor R0-R19	$	0.75 per Sq. Ft.	$	1.00 per Sq. Ft.
Floor R0-R30	$	0.75 per Sq. Ft.	$	1.50 per Sq. Ft.
Windows – Single/Double to U22	$	4.00 per Sq. Ft.	$	10.00 per Sq. Ft.
Windows – Single/Double to U30 – DIY		N/A	$	5.0 per Sq. Ft.
Storm Windows – Single/Double to U22	$	3.00 per Sq. Ft.	$	10.00 per Sq. Ft.
Storm Windows – Single/Double to U22 – DIY		N/A	$	5.00 per Sq. Ft.

Residential Midstream

Program Description

Avista's Residential Midstream Program moves traditional utility incentives up the supply chain to target the market actors that have the greatest influence on equipment sales. Avista's approach with the Midstream Program is to work with distributors, who influence the majority of equipment sales in a given region. Avista will work with its vendor, Energy Solutions, to encourage the inflow of high-efficiency and efficient equipment into Avista's market.

The Midstream Program offers a flexible approach by paying the incentive or buy-down of the energy efficiency equipment to either (a) the distributor to promote more market transformation, or (b) the contractor or customer, so they receive a benefit equivalent to a traditional prescriptive program. For residential offerings, Avista designed the program so that the installed equipment is discounted or marked down to make it more affordable to the customer. See the commercial/industrial section of this report for additional midstream programs.

Program Manager

Michele Drake

TABLE 32 – RESIDENTIAL MIDSTREAM PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		629,132
Incentives	$	157,812
Non-Incentive Utility Costs	$	45,992
Total Costs	$	203,804
Non-Energy Impacts	$	99,237
Cost-Effectiveness		
Total Resource Cost		2.87
Utility Cost Test		2.34

Program Eligibility

Participation in the Residential Midstream Program requires that the participant is a residential customer in Washington. There are no minimum use requirements for participation, but the customer must have electric service through Schedule 01.

TABLE 33 – RESIDENTIAL MIDSTREAM PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
Air Source Heat Pumps	121	Units	2,001.16	$	463.77
Heat Pump Water Heaters	180	Units	2,149.96	$	564.98

Residential Pilot Programs

As described in WAC 480-109-100(1)(a)(iv), utilities must engage in adaptive management of conservation portfolios to ensure that those portfolios respond appropriately 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, pursuant to WAC 480-109-100(1)(c).

Avista is continuously evaluating new technologies and new approaches for attaining energy savings. As the company pursues all cost-effective kWh and therms, piloting new programs allows both Avista and its customers to explore new avenues for obtaining energy savings. For 2023, the company is exploring multiple pilot programs for residential customers. These pilot programs are in addition to those Avista is launching related to CETA (page 8), as well as pilot programs designed for commercial/industrial customers (page 48). The progress of these new and pilot programs is shared regularly with the advisory group.

Residential Home Energy Audit Pilot Program

Program Description

The Home Energy Audit Pilot Program is designed to educate and drive customer engagement around conservation and promote Avista's energy efficiency programs and renewable-energy options. Energy savings are captured for direct-installation measures. Additional energy savings have been observed during the pilot as a result of program participants implementing recommended efficiency measures. Some of these measures qualify for Avista rebates, and savings are captured through those programs.

Key components of this program include (a) providing customers with a home assessment from a knowledgeable and qualified energy inspector, (b) direct installation measures to encourage customer interest, (c) marketing efforts to drive customers to the program, and (d) ongoing work with trade allies to ensure that customer demand can be met. The Avista website also communicates program requirements and highlights opportunities for customers.

Program Implementation

Taking advantage of previous Home Energy Audit Pilot Program experience and aligning with industry best practices, Avista launched a pilot home energy audit program in 2019. Audits were performed on 61 homes during the pilot period, ending early in 2020. Approval to expand to full program status was received from both Washington and Idaho late in the first quarter of 2020. As a result, Avista proceeded to implement the program and created an RFP to recruit contract auditors. The RFP was ultimately not issued, however, due to the suspension of the program resulting from the COVID-19 pandemic. Avista plans to proceed with the full program in 2023.

Program Eligibility

This program is applicable to residential customers who use Avista electricity or natural gas as their primary heating source in Washington and Idaho.

Measures and Incentives

With an audit, the customer receives a comprehensive and detailed Home Energy Assessment Report that includes energy savings measures targeted to the specific home, as well as direct installation and leave-behind materials.

AeroBarrier Pilot Program

Program Description

Reducing air leaks in a new-construction home results in sustainable benefits with increased comfort, reduced energy usage, and lower energy bills. Many builders recognize and promote this, but there are several value-based builders who choose not to meet air-seal code requirements. Avista is targeting all builders for this pilot and will track demographics of each to determine the value and future potential for this program. Avista has categorized builders into the following groups.

TABLE 34 – AEROBARRIER PILOT PROGRAM NEW CONSTRUCTION BUILDER GROUPS

Group	Type	Characteristics
1	Ready for NetZero	Consistently build to ENERGY STAR and NetZero standards
		Builder team familiar with how to achieve good results
		Typical air tightness targets are between 1.5 & 2.5 ACH(50)*
2	Performance Builders	Regularly build to above code air tightness
		Select members on builder team knowledgeable about air testing
		Typical air tightness targets are between 2.0 & 3.0 ACH(50)
3	Code Minimum	Prescriptive path home builders
		Often struggle to pass air tightness testing to meet code
		Typical air tightness levels +5.0 ACH(50)

*ACH is air changes per hour (a way of rating the air tightness of a building).

The pilot was launched in April 2021 to provide home builders with an incentive to seal new homes with AeroBarrier's product. Through this pilot, Avista intends to evaluate the cost-effectiveness of this method on up to 300 homes; to accomplish this, the pilot is expected to run for a one-year term.

Program Implementation

A comprehensive list of new home builders was created from publicly available historical building permit applications and internal trade ally lists. Marketing materials to bring awareness of this new pilot program were then mailed and/or emailed to this list of builders. In addition, Avista promoted the pilot to the Spokane Area Home Builder's Association at monthly meetings and provided leave-behind reference materials for this group to have on hand. Website content was also created and added to myavista.com for awareness and reference.

Program Eligibility

Eligibility for the pilot rebate includes builders of residential single-family new-construction homes in Washington and Idaho using an Avista fuel for space heating.

Customers who meet the eligibility requirements will receive a $100 per air change per hour at 50 pascals (ACH(50)) reduction from the pre-seal value or state building code level (whichever is less) per 1,000 square feet sealed, subject to the provision of required documents by the customer to Avista (either mailed or submitted electronically). However, online rebate processing is not currently within the scope of the pilot, as further review by Avista's technology team is still required. For the pilot, Avista will include a 50 percent adder to aid in removing the market barrier. Incentives will be capped at the total project cost.

TABLE 35 – AEROBARRIER PILOT PROGRAM INCENTIVE CALCULATION EXAMPLES

Location	Pre-ACH @ 50 Pascals	Post-ACH @ 50 Pascals	Incentive amount based on code of 5ACH(50) baseline ($100 + 50% added = $150 incentive/ACH(50) reduced per 1,000 ft sq.
Site 1 2500 Sq. Ft.	3.2	1.5	3.2 – 1.5 = 1.7 | 1.7 * $150 = $255
			$255 *2.500 = $637.50
Site 2 2500 Sq. Ft.	7.4	2.4	5 (code) – 2.4 = 2.6 | 2.6 * $150 = $390 | $390 * 2.500 = $975
Site 3 2500 Sq. Ft.	4.9	0.4	4.9 - 0.44 = 4.56 | 4.56 * $150 = $684
			$684 * 2.500 = $1,710

On-Bill Repayment/Financing Program

Program Description

For almost four decades Avista has supported energy efficiency financing solutions throughout its service territory, with the last program ending in 2016. With the company no longer offering on-bill repayment/financing programs in recent years, it was asked to review offering a new OBR program in 2021 for its Washington residential and small business customers. The request was made as part of the settlement stipulation in Avista's 2019 Washington General Rate Case (GRC) as provided below:

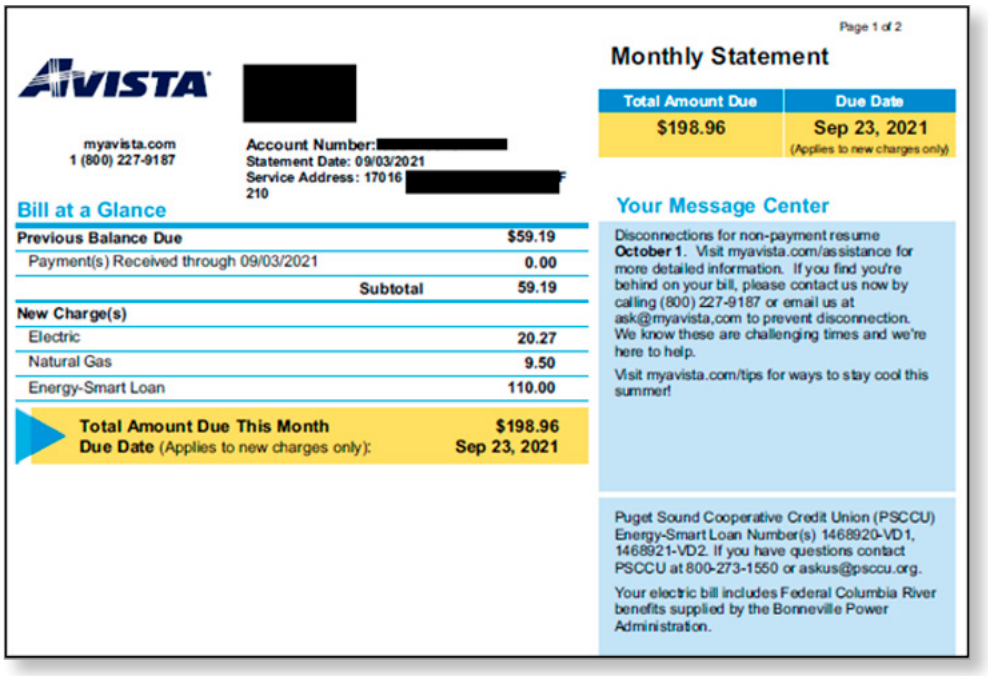
> *On-Bill Repayment/Financing Program – Avista will provide a proposal for the Energy Efficiency Advisory Group (EEAG) for on-bill repayment/financing programs for residential and small business customers (Schedules 01, 11, and 101). Avista will incorporate feedback from the EEAG in the final program designs by January 2, 2021. If Avista and the EEAG reach agreement on program terms and design, the company will file the programs with the commission such that the programs are implemented by September 30, 2021. Based on the outcome of discussions with the EEAG, the company may file small business and residential programs together or individually with the commission. The company will file a status report with the commission if agreement is not reached with the EEAG for programs offered to the enumerated customer classes by September 30, 2021. Development costs associated with this program will be recoverable from customers and means of recovery will be addressed in a future GRC.*

As a result of the request, Avista issued an RFP for a lending solution at the end of 2020, and with assistance from the EEAG, reviewed various OBR program solutions from bid respondents. After careful consideration and evaluation, Avista selected Puget Sound Cooperative Credit Union (PSCCU) as a partner to deliver a flexible funding solution for customers' energy efficiency projects. OBR became available on October 1, 2021.[1]

OBR's program benefits are twofold. First, PSCCU offers Energy-Smart Loans for energy-efficient projects to home- and business owners in Washington State. Second, their personalized underwriting practices and low interest rates allow participants to reap immediate benefits from energy efficiency upgrades. Paying the loan back on their Avista bill further provides participants with the ease and convenience of one less bill to manage.

Customers' Energy-Smart Loan installments are billed monthly as a line item on the Avista bill until either the term of the loan is completed or Avista is otherwise instructed by PSCCU to remove the loan from the bill. Extra principal payments or early loan payoffs are made directly to PSCCU.

FIGURE 5 – ON-BILL REPAYMENT/FINANCING BILL EXAMPLE



Page 1 of 2

AVISTA

[redacted]

myavista.com
1 (800) 227-9187

Account Number: [redacted]
Statement Date: 09/03/2021
Service Address: 17016 [redacted] F
210

Monthly Statement

Total Amount Due	Due Date
$198.96	Sep 23, 2021 (Applies to new charges only)

Bill at a Glance

Previous Balance Due	$59.19
Payment(s) Received through 09/03/2021	0.00
Subtotal	59.19
New Charge(s)	
Electric	20.27
Natural Gas	9.50
Energy-Smart Loan	110.00
Total Amount Due This Month	$198.96
Due Date (Applies to new charges only):	Sep 23, 2021

Your Message Center

Disconnections for non-payment resume **October 1**. Visit myavista.com/assistance for more detailed information. If you find you're behind on your bill, please contact us now by calling (800) 227-9187 or email us at ask@myavista.com to prevent disconnection. We know these are challenging times and we're here to help.

Visit myavista.com/tips for ways to stay cool this summer!

Puget Sound Cooperative Credit Union (PSCCU) Energy-Smart Loan Number(s) 1468920-VD1, 1468921-VD2. If you have questions contact PSCCU at 800-273-1550 or askus@psccu.org.

Your electric bill includes Federal Columbia River benefits supplied by the Bonneville Power Administration.

1) See Docket Nos. UE-210399 and UG-210400.

PSCCU's favorable interest rates are further lowered by Avista subsidies to allow more customers access to energy efficiency project funding.

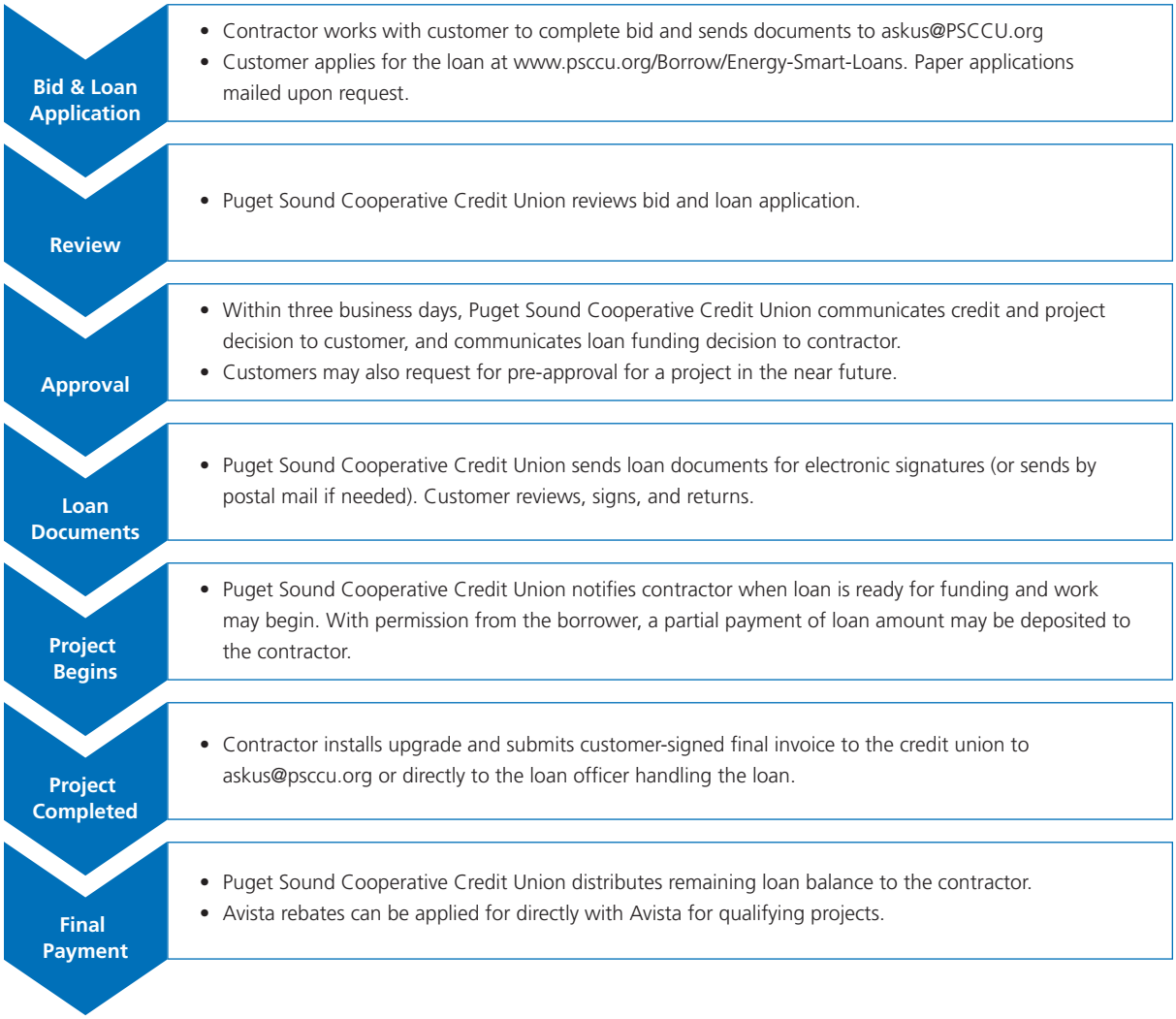
TABLE 36 – ON-BILL REPAYMENT/FINANCING PROGRAM RATES AND TERMS

	Residential	Small Business
Loan Amount	$1,000-$30,000 residential	$5,000-$65,000 small business
Interest Rate	Up to 5.00%	Up to 5.00%
Term	Up to 15 or 20 years	Up to 15 years
Recording Fee	$225 UCC filing fee*	Varies*
Example	$12,000 loan at 5%, 180 payments of $95 each	

* Fees can be paid up front or added to the loan at the borrower's discretion.

Participation in the On-Bill Repayment Program is outlined below.

FIGURE 6 – ON-BILL REPAYMENT/FINANCING CUSTOMER PARTICIPATION JOURNEY



Energy-Smart Loans through Avista's On-Bill Repayment Program are intended for customers who are in need of assistance for upfront capital for the purchase of energy efficiency equipment and related labor. This customer segment is expected to include both income-qualified and residential customers. Processes to ensure income-qualified customers are directed to CAP agencies will be implemented. Income-qualified customers may apply for an Energy-Smart Loan and participate in the OBR program if they choose to do so after all other options have been shared with them.

Program Implementation

Avista's technical teams worked closely with its partner lender, PSCCU, to develop the integration specifications needed to support the accurate, timely, and secure sharing of information for billing and payment processing. This served as the foundation for testing in preparation for the October 1 launch date.

The key to the program's success is Avista's trade allies, who will help promote and deliver the program. Multi-channel Avista marketing efforts will also drive customers to the OBR program.

Program Eligibility

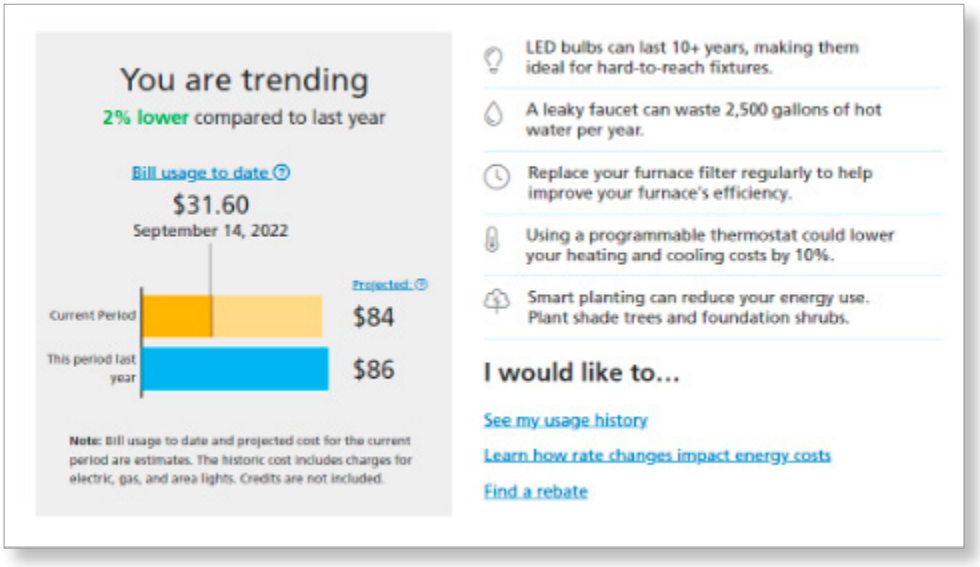
Residential and small business customers in owner-occupied buildings may be eligible for OBR; funded measures must be fueled by Avista. An eligible projects list created by Avista and supported by Washington State's Clean Energy Fund program guidelines is maintained on both Avista's and PSCCU's websites; customers can use it as a reference when considering this funding solution for their project.

Residential Always-On Load Behavioral Program

Program Description

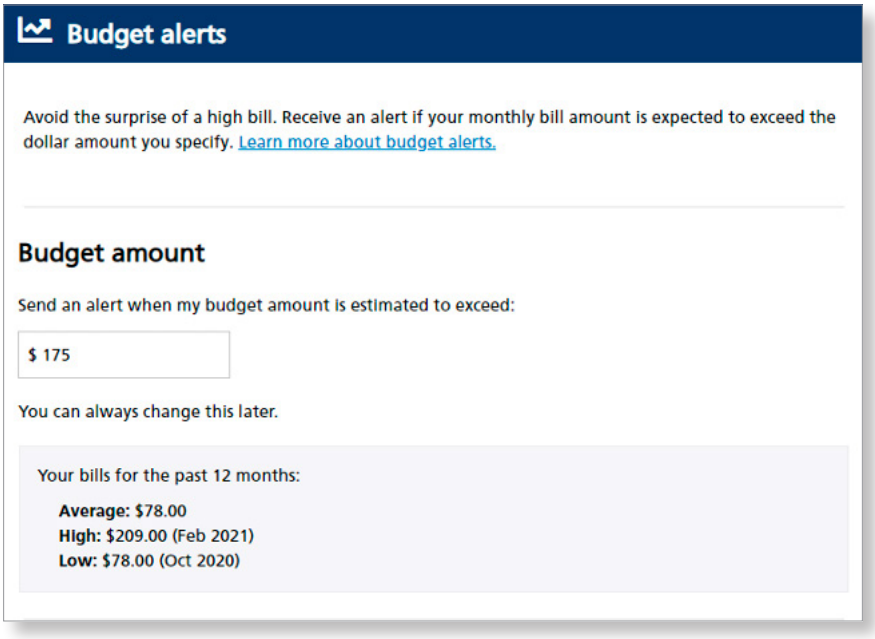
Avista completed installation of Advanced Metering Infrastructure (AMI) meters in its Washington service territory in 2021. This AMI deployment has presented numerous opportunities to enhance energy conservation opportunities for customers. Customers are currently able to access energy usage data through a customer portal, myavista.com, which uses AMI data to provide insights for customers to adaptively manage their energy consumption. Through the portal, they can view a projected monthly bill based on average daily usage. They can also view five-minute interval data, which allows them to understand their energy use profile in greater detail. Figure 7 shows a screenshot of a sample customer portal account summary.

FIGURE 7 – RESIDENTIAL ALWAYS-ON LOAD BEHAVIORAL PROGRAM CUSTOMER ACCOUNT PORTAL EXAMPLE



Avista has also developed notifications that are sent to customers when their user-defined budget threshold is projected to be exceeded. Customers can log in at myavista.com or call customer service to define a budget threshold (e.g. $175). If the projected bill amount is predicted to exceed their chosen amount, Avista will alert the customer, via email or text, thus providing them with the opportunity to adjust usage to lower their monthly bill.

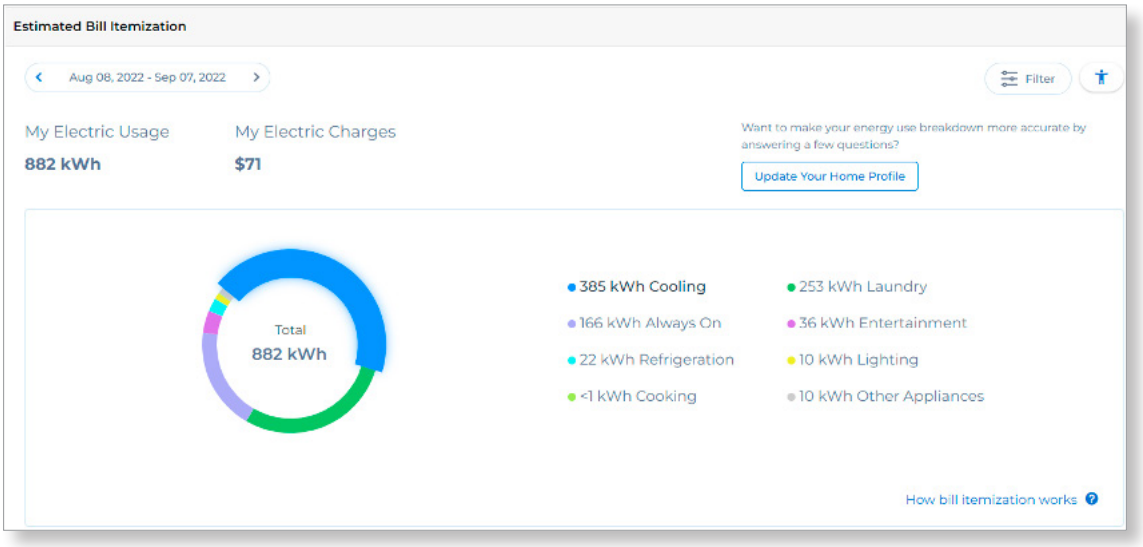
FIGURE 8 – RESIDENTIAL ALWAYS-ON LOAD BEHAVIORAL PROGRAM BUDGET ALERT EXAMPLE



Based on what was learned from Avista's previous experience with home energy reports and with the Sense Device Behavioral Pilot – which estimated that customers who were engaged with an energy savings application saved approximately 7 percent of baseline usage – Avista has identified a new opportunity to provide additional customer-facing value from the Washington AMI deployment. The targeted-load behavioral program uses AMI-based non-intrusive load monitoring to identify the loads that are present within a residence. Load information is shared with customers to better inform them of energy efficiency solutions. Avista used Bidgely's patented machine learning algorithms found in their Enterprise Analytics and CARE tools to develop these programs.

An example of an AMI-based load disaggregation is shown in Figure 9.

FIGURE 9 – RESIDENTIAL ALWAYS-ON LOAD BEHAVIORAL PROGRAM EXAMPLE



Program Manager

Rachelle Humphrey

TABLE 37 – RESIDENTIAL ALWAYS-ON PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		1,890,000
Incentives	$	1,687,500
Non-Incentive Utility Costs	$	85,559
Total Costs	$	1,773,059
Non-Energy Impacts	$	0
Cost-Effectiveness		
Total Resource Cost		6.26
Utility Cost Test		0.27

Program Implementation

The initial target of the program is reductions in always-on load. This target was selected because, on average, 20 percent of a customer's bill can be attributed to always-on loads, and because calculations related to determining always-on loads are very accurate. An additional benefit of targeting always on loads is that significant improvements can be achieved with low- or no-cost behavioral interventions, such as turning off computers when not in use. Participants in this program will be randomly assigned to one of three potential groups: two treatment arms and one control group. An initial communication will be sent to customers in the treatment groups that will include personalized information regarding always-on usage, associated costs, tips to reduce the load, and anticipated cost savings. Subsequent communications, sent monthly, update customers on their progress as well as whether they earned a monthly bill credit for reducing always-on usage compared to their baseline (one of the two treatment groups is eligible). This program allows Avista to weigh behavioral responses to personalized information, private costs, and economic incentives in order to determine what method generates the highest reduction in always-on usage.

Avista will track and report on observed energy savings as a result of the program. Based on initial estimates from the Bidgely Analytics Workbench, Avista customers are consuming approximately 140 kWh of always-on load a month. The program is estimating a reduction of 2 percent (2.8 kWh) a month relative to each customer's baseline. Avista will begin delivering this program in the second quarter of 2023.

Program Eligibility

For the initial pilot, Avista targeted the top third of residential always-on users – around 75,000 customers. In 2023, Avista will increase the number of participants in the program to around 100,000 customers. Following the results of the pilot, Avista estimates a less than two percent opt-out rate of customers who choose to no longer receive communications related to the program.

Program Evaluation

Given the uniqueness of behavioral programs, Avista will work with its EM&V vendor to include within its EM&V plan effective methods for the evaluation of this program. It is assumed that the persistence of savings, the lasting impact around energy efficiency messaging, exists through the Always-On communication. However, Avista would defer to our evaluator on what industry best practices are for evaluating the incremental savings through these programs.

Low-Income Portfolio Overview

Low-Income Program

Program Description

Low-income programs are offered in a cooperative effort with multiple agencies under annual contract to Avista. The funding allows for considerable flexibility for the agencies to deliver to each individual low-income client a mix of measures that are most applicable to their home.

Program Manager

Renee Coelho

TABLE 38 – LOW-INCOME PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		1,203,682
Incentives	$	2,191,766
Non-Incentive Utility Costs	$	802,632
Total Costs	$	2,994,397
Non-Energy Impacts	$	2,883,983
Cost-Effectiveness		
Total Resource Cost		2.16
Utility Cost Test		0.92

Avista partners with seven Community Action Partner (CAP) agencies and one Tribal Housing Authority to deliver energy efficiency programs to income-eligible customers. The agencies qualify the customers, generate referrals (often from their bill assistance offerings), and have access to a variety of funding sources available to best meet customers' home energy needs.

The agencies serving Avista's Washington service territory receive an aggregate annual funding amount of $3 million, which covers the cost of energy efficiency work; any needed health, safety, or repair improvements; agency administration, and program support. Currently, Avista's Low-Income Program is budgeted at $3 million; however, the overall budget is estimated at nearly $4.5 million between gas and electric programs.[2] The difference is based on the intent to serve more customers, consider different programming approaches, increase cost-effectiveness, and meet other requirements from the Clean Energy Implementation Plan. Avista does not require an agency to serve a certain number of homes heated by electricity or natural gas. Homes with priority exhibit high energy use, high energy burden, or other characteristics of eligibility (e.g. senior, disabled, Native American). While funds are allocated to specific agencies in this plan, Avista remains flexible to meet incremental needs within the communities being served.

2) As a part of a pending multi-party settlement, the funding for low-income is set to increase to $4 million for 2023. Avista has built into its plan a level of expense for low-income to approximate the increased funding.

For example, the budgets listed below are agency annual allocations. The agencies received a 2-year agreement, beginning in 2022, that align with the company's biennial conservation plan. This budget timeframe allows the agencies to pull funding from a future year's allocation to continue serving Avista customers in advance of the new contract. Because other funding sources run on a fiscal year, utility funding is often calculated on a calendar year and then utilized later in the year. This change in funding availability allows for continuous use of utility funds and a regular cadence for utility billing throughout the year, rather than concentrating the expenses after the midway point on a calendar.

Table 39 shows the budgeted funding allocation by agency and counties served.

TABLE 39 – LOW-INCOME PROGRAM FUNDING BY CAP AGENCY

CAP Agency	County	Funding
Spokane Neighborhood Action Partners (SNAP)	Spokane	$ 1,950,000
Rural Resources Community Action	Ferry, Lincoln, Pend Oreille, Stevens	$ 250,000
Community Action Center	Whitman	$ 210,000
Opportunities Industrialization Council	Adams, Grant	$ 110,000
Spokane Indian Housing Authority	Stevens County	$ 30,000
Community Action Council of Lewis, Mason & Thurston Counties	Klickitat, Skamania	$ 40,000
Benton Franklin County Community Action	Franklin	$ 30,000
Community Action Partnership	Asotin	$ 360,000
Set aside/TBD		$ 20,000
Total		**$ 3,000,000**

Current funding of $3,000,000 is shown. Avista anticipates that the level of funding will increase to $4,000,000 as part of its GRC settlement in Washington.

The agencies are authorized to use 10 percent of these funds for administration cost reimbursement and 20 percent toward program support reimbursement. Avista also permits them to use up to 30 percent of the contract to fund health, safety, and home repairs. This spending is at the agency's discretion and offers flexibility in preparing a home to accommodate the improvement and preserve the longevity of the installed measures.

TABLE 40 – LOW-INCOME APPROVED MEASURES AND DIRECT CUSTOMER BENEFITS

	Projected Participation		Funding	Per-Unit kWh Savings	Direct Benefit to Customer
Air Infiltration – Electric	200	Units	Fully Fund	803	$ 1,612.90
ENERGY STAR-Rated Doors	100	Units	Fully Fund	162	$ 1,495.90
ENERGY STAR-Rated Refrigerator	50	Units	Fully Fund	39	$ 640.55
Windows	20,000	Sq. Ft.	Fully Fund	6 per Sq. Ft.	$ 20.45 per Sq. Ft.
Air Source Heat Pump	20	Units	Rebate	878	$ 1,388.36
Attic Insulation	40,000	Sq. Ft.	Fully Fund	1 per Sq. Ft.	$ 1.76 per Sq. Ft.
Duct Insulation	40,000	Sq. Ft.	Fully Fund	3 per Sq. Ft.	$ 3.05 per Sq. Ft.
Floor Insulation	40,000	Sq. Ft.	Fully Fund	1 per Sq. Ft.	$ 3.03 per Sq. Ft.
Wall Insulation	40,000	Sq. Ft.	Fully Fund	2 per Sq. Ft.	$ 2.17 per Sq. Ft.
Duct Sealing	100	Units	Fully Fund	710	$ 654.20
Ductless Heat Pump (single Head) (w/ FAF)	50	Units	Fully Fund	3,016	$ 6,286.70
Ductless Heat Pump (single head) (displace zonal)	50	Units	Fully Fund	3,016	$ 6,286.70
Tier 2-3 HP WH	10	Units	Fully Fund	587	$ 697.39
Conversion to Air Source Heat Pump	10	Units	Fully Fund	7,234	$ 7,819.50
Health, Safety Repair	1	Unit	Fully Fund	1	$ 1.00
Outreach LEDs	10,000	Units	Fully Fund	1	$ 1.10
Smart Thermostats – Contractor-Installed	200	Units	Fully Fund	749	$ 250.00
Door Sweep – CFM50 reduction – Leave Behind	350	Units	Fully Fund	14	$ 20.00
Storm Windows	300	Sq. Ft.	Fully Fund	6 per Sq. Ft.	$ 10.47 per Sq. Ft.

The 2023 program year will continue to see many common, electric efficiency improvements being fully funded. Health, safety, and repair projects are also fully funded, although no more than 30 percent of the annual contract may be used for this work and must accompany a qualifying efficiency improvement. Avista will also introduce a fully-funded measure for direct-install LEDs and calculate projected participation, per-unit kWh savings, and direct customer benefit for the measure in late 2022.

Per WAC 480-109-100(10)(a), measures identified through the deemed measure priority list in the *Weatherization Manual* are considered cost-effective. Measures reimbursed at 100 percent have a TRC of 1.0 or better.

For efficiency measures with a TRC less than 1.0 and those not included on the priority list, a rebate that is equal to Avista's avoided cost of energy is provided to the agency. The agencies may also choose to use their health, safety, and repair allocation toward the full cost of the rebated measure if they do not have other funding sources to make up the difference.

Agencies are encouraged to work with Avista when opportunities for energy efficiency are identified that are not on either the approved or the rebate list.

Community Energy Efficiency Program

The Community Energy Efficiency Program (CEEP) was created by the Washington State Legislature in 2009 to tackle hard-to-reach markets in both the residential and commercial sectors by encouraging energy efficiency improvements. The CEEP pilot was funded by the DOE's State Energy Program and the American Recovery and Reinvestment Act. CEEP partners are selected by a competitive request for proposals and independent review committee. Avista has been a CEEP recipient since 2014.

The company initially received a $750,000 allocation for the 2020-21 funding year that was set to complete in June 2021. Due to pandemic-driven delays, along with the availability of additional funds, Avista was provided a second extension and additional $250,000 to continue this effort until June 2023. Avista will now provide $1M in matching funds, along with in-kind program administrative support, towards the implementation of three distinct program initiatives: (1) improve energy efficiency in multifamily housing, (2) convert income-qualified homes with an alternative heat source (e.g. wood and oil) to a heat pump system and improve weatherization, and (3) on the commercial side, leverage CEEP funds as a match with utility rebates for energy efficiency work done at businesses in rural communities.

Commercial/Industrial Portfolio Overview

The commercial/industrial energy efficiency market is served 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 commercial/industrial market are preferred for measures that are relatively homogenous in scope and uniform in their energy efficiency characteristics.

Unlike the Site-Specific Program, prescriptive paths do not require pre-project contracting, thus lending themselves to streamlined administrative and marketing efforts. Incentives are established for these prescriptive programs following Avista's guidelines and standard operating procedures. Actual costs and savings are tracked, reported, and available to the third-party impact evaluator. Many, but not all, of the prescriptive measures use RTF UES.

When the prescriptive path is not available, Avista offers commercial/industrial 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 employ 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 on projects' individual characteristics as they apply to the company's guidelines and standard operating procedures.

For the 2023 program year, Avista anticipates 47,285,042 kWh to be achieved through commercial/industrial programs with an expected spend of $16,279,232. Table 41 includes the estimated savings and spend by program.

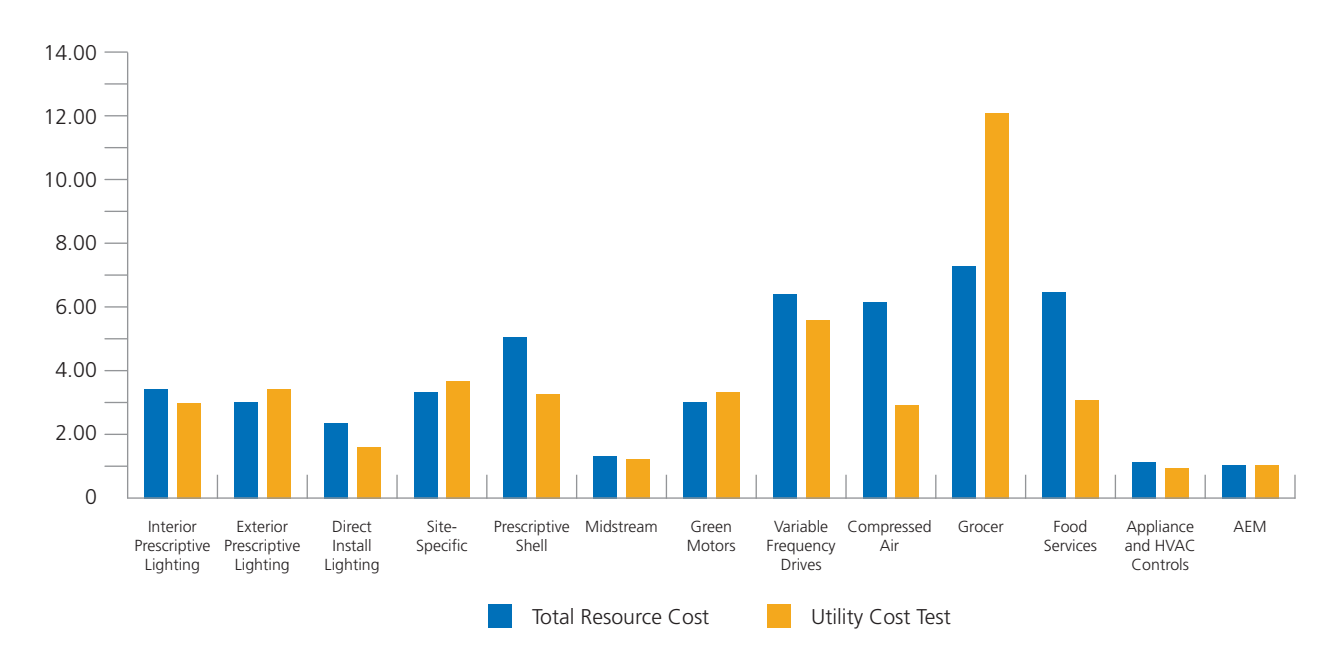
TABLE 41 – COMMERCIAL/INDUSTRIAL PROGRAM OVERVIEW

Commercial/Industrial Programs	Electric Program Savings (kWh)	Expected Spend
Interior Prescriptive Lighting	10,341,966	$ 3,188,032
Exterior Prescriptive Lighting	6,424,212	$ 2,023,499
Direct Install Lighting	2,475,000	$ 1,533,477
Site-Specific	25,000,000	$ 8,422,533
Prescriptive Shell	321,000	$ 198,564
Midstream	159,448	$ 163,491
Green Motors	51,193	$ 10,039
Variable Frequency Drives	773,800	$ 170,801
Compressed Air	42,000	$ 11,919
Grocer	304,199	$ 24,914
Food Services	177,777	$ 43,998
Appliance and HVAC Controls	94,446	$ 37,966
Active Energy Management	1,120,000	$ 450,000
Total Commercial/Industrial	**47,285,042**	**$ 16,279,232**

The Green Motors program is offered to customers through third-party implementation staff, while the other programs are fielded by Avista energy efficiency staff.

Quantifiable non-energy benefits (NEBs) are included in the TRC calculation, including but not limited to reductions in maintenance, water, sewer, and non-utility energy costs. All assigned and allocated non-incentive utility costs have been incorporated into the cost-effectiveness calculation. Figure 10 identifies the TRC and Utility Cost Test (UCT) cost effectiveness for the prescriptive commercial/industrial program.

FIGURE 10 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE PROGRAMS COST-EFFECTIVENESS



	Interior Prescriptive Lighting	Exterior Prescriptive Lighting	Direct Install Lighting	Site-Specific	Prescriptive Shell	Midstream	Green Motors	Variable Frequency Drives	Comp Air	Grocer	Food Services	Appliance and HVAC Controls	AEM
TRC	3.35	3.01	2.27	3.31	5.08	1.26	2.99	6.39	6.15	7.22	6.41	1.09	1.06
UCT	2.94	3.34	1.60	3.79	3.22	1.14	3.36	5.67	2.94	12.05	3.07	0.98	1.04

Avista's Site-Specific Program has historically been one of the largest – and frequently one of the more cost-effective. 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. Table 42 identifies the cost-effectiveness for the Site-Specific Program.

TABLE 42 – COMMERCIAL/INDUSTRIAL SITE-SPECIFIC PROGRAM COST-EFFECTIVENESS

	Site-Specific
Total Resource Cost	3.31
Utility Cost Test	3.79

Commercial/Industrial Programs

Commercial/Industrial Site-Specific Program

Program Description

The Site Specific Program provides calculated incentives to support the installation of qualifying energy efficiency equipment at commercial/industrial sites. These projects typically have a higher degree of complexity than the traditional prescriptive offerings and rely on custom calculations of savings and incentive levels. Examples of these projects include process improvements, upgrades to specialized equipment used in manufacturing, lighting installations that rely on specialized controls, and other measures designed around the customer's specific needs.

Avista's Site-Specific Program is a major component in its commercial/industrial offerings and has historically been one of the more cost-effective portions of the energy efficiency portfolio. Customers receive technical assistance and incentives in accordance with Avista's Schedule 90 in Washington. The program approach strives for a flexible response to energy efficiency projects that have demonstrable kWh savings within program criteria. Most site-specific kWh savings are composed of custom lighting projects and custom HVAC, envelope, and industrial process load projects that do not fit the prescriptive path. The Site-Specific Program is available to all commercial/industrial retail electric customers, and typically brings in the largest portion of savings to the overall energy efficiency portfolio.

Program Manager

Lorri Kirstein

TABLE 43 – COMMERCIAL/INDUSTRIAL SITE-SPECIFIC PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		25,000,000
Incentives	$	6,500,000
Non-Incentive Utility Costs	$	1,672,533
Total Costs	$	8,172,533
Non-Energy Impacts	$	631,257
Cost-Effectiveness		
Total Resource Cost		3.31
Utility Cost Test		3.79

Program Implementation

This program will offer an incentive for any qualifying electric energy-saving measure up to the incremental efficiency measure cost that has a simple payback which is less than the life of the measure being installed. Avista will make adjustments to the percentage of incremental cost paid in order to obtain the greatest energy savings at the lowest cost. A cap of 70 percent of the incremental cost and a 15-year measure simple payback based on energy cost savings

is used unless a business need to increase either parameter is articulated.[3] Site-Specific program savings can be difficult to predict because of the large nature of the projects and long sales cycles. General economy shifts may also affect customer willingness to fund efficiency improvements. Increases in process and eligibility complexity and in customer costs to participate beyond the capital investment, as well as costs for post-measurement activities, are kept in mind and managed in order to continue to successfully engage customers.

Key components of the program include direct incentives to encourage customer interest, marketing efforts, account executives whose input and assistance can drive customers to the program, and ongoing work with trade allies to ensure that customer demand can be met. The Avista website and the trade ally network are used to communicate program requirements, incentives, and forms.

Program Revisions

In order to meet savings goals in a difficult labor and supply chain environment, Avista is considering adding a potential commission for installers who complete projects. This commission would be paid to installers and would be in addition to customer incentives that continue to go directly to the customer. The commission is set to $0.01 per kWh for completed projects.

TABLE 44 – COMMERCIAL/INDUSTRIAL SITE-SPECIFIC PROGRAM MEASURES, INCENTIVES, AND BUDGET

	Annual Electric Savings (kWh)	Annual Incentive
Site-Specific Projects	25,000,000	$ 6,500,000

Commercial/Industrial Business Partner Program

The Business Partner Program (BPP) is an outreach effort designed to target Avista's rural small business customers by bringing awareness of utility programs and services that can assist them in managing their energy bills. When it comes to actually participating in energy efficiency programs, small businesses are chiefly focused on ways to save money, and often don't have enough time or capital to make improvements. The BPP provides a comprehensive approach by offering these typically hard-to-reach customers a free energy assessment, education about understanding their utility bills and billing options offered by Avista, and financial incentives for efficiency measures.

To further support the BPP, Community Energy Efficiency Program (CEEP) funding was approved for 2022 and 2023. The funding, which expires In June of 2023, will continue to be used toward assisting rural small business customers with financing the coordination and installation of identified energy efficiency measures (e.g. a lighting retrofit) that may have been identified during the energy assessment.

3) A 15-year simple payback is used as a proxy for cost-effectiveness for communication with customers. In some situations, a potential project may be tested against the TRC to determine whether it is cost-effective outside of the 15-year simple payback guideline.

Commercial/Industrial Prescriptive Lighting Program

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 customers.

In an effort to streamline the process and make it easier for customers and vendors to participate in the program, Avista developed a prescriptive approach for commercial/industrial customers in 2004. This program provides for many common retrofits to receive a pre-determined incentive amount. Incentive amounts and energy savings are calculated using baseline existing wattages and replacement wattages, as well as costs per unit and customer run times – all averages from historical project data. Avista will be revising the per-unit lighting incentive calculation to approximately $0.26 per kWh, up from $0.23 per kWh in 2022.

The Prescriptive Lighting Program makes it easier for customers – particularly smaller customers and vendors – to participate in the program. The measures included in the Prescriptive Lighting Program include retrofits from fluorescent lamps and fixtures, HID, MR16, and incandescent can fixtures to more energy-efficient LED light sources and networked controls.

Program Manager

Rachelle Humphrey

TABLE 45 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE LIGHTING PROGRAM METRICS

Projected Program Metrics	Interior	Exterior
Overall kWh Savings	10,341,966	6,424,212
Incentives	$ 2,628,350	$ 1,669,000
Non-Incentive Utility Costs	$ 559,682	$ 354,499
Total Costs	$ 3,188,032	$ 2,023,499
Non-Energy Impacts	$ 258,045	$ 137,301
Cost-Effectiveness		
Total Resource Cost	3.35	3.01
Utility Cost Test	2.94	3.34

Program Implementation

Key components of this program are direct incentives to encourage customer interest, marketing efforts to drive customers to the program, account executive outreach, and ongoing work with trade allies to ensure that customer demand can be met. Along with Avista's current opportunities that allow trade allies to submit prescriptive lighting incentive applications directly into the iEnergy tracking and payment system, Avista plans to release additional functionality for customers to self-serve.

Critical to program success is clear communication to lighting supply houses, distributors, electricians, and customers on incentive requirements and forms. The Avista website also communicates program requirements and highlights opportunities for customers. Avista's regionally based account executives are an important part of delivering the Prescriptive Lighting Program to commercial/industrial customers. Any changes to the program typically include an advance notice of 90 days to submit required documentation under the old requirements and/or incentive levels. This usually includes, at a minimum, direct email communication to trade allies as well as forms and website updates.

Program Eligibility

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

TABLE 46 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE LIGHTING PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive
T8 TLED 2'	1,000	Units	34	$ 9
T8 TLED 3'	150	Units	43	$ 11
T8 TLED 4'	80,000	Units	54	$ 14
T8 TLED 8'	3,000	Units	103	$ 27
U-Bend	500	Units	59	$ 15
T5 TLED 4'	2,000	Units	64	$ 17
T5HO TLED	15,000	Units	135	$ 35
TLED to TLED	200	Units	18	$ 5
CFL to CFLED	1,000	Units	69	$ 18
1x4 Fixture	400	Units	157	$ 40
2x2 Fixture	600	Units	138	$ 36
2x4 Fixture	1,000	Units	238	$ 60
T8 8' Strip Fixture	300	Units	337	$ 85
4LT5HO to 135 Watt Fixture	400	Units	386	$ 100
6LT5HO to 160 Watt Fixture	500	Units	807	$ 210
250 to 140 Watt Fixture/Lamp	400	Units	1,022	$ 265
400 to 175 Watt Fixture/Lamp	700	Units	1,243	$ 325
1000 to 400 Watt Fixture/Lamp	50	Units	3,285	$ 560

	Projected Participation		Per-Unit kWh Savings	Incentive
100W Incan to LED Fixture Retrofit	250	Units	227	$ 60
Occupancy Sensors Ceiling/Fixture Mount	100	Units	499	$ 75
LLLC Fixture – NLC	1,000	Units	724	$ 150
175 to 75 Watt Fixture/Lamp	50	Units	564	$ 145
CFL Fixture to LED Fixture retrofit	750	Units	82	$ 20
65W Incan to LED Fixture Retrofit	50	Units	186	$ 45
150W Incan to LED Fixture Retrofit	50	Units	406	$ 75
Occupancy Sensor Wall Switch	50	Units	65	$ 17
89 to 25 Watt Fixture/Lamp	300	Units	333	$ 85
100 to 30 Watt Fixture/Lamp	300	Units	455	$ 120
150 to 50 Watt Fixture/Lamp	300	Units	703	$ 180
175 to 100 Watt Fixture/Lamp	450	Units	704	$ 180
100 Watt NC Fixture	300	Units	664	$ 170
250 to 140 Watt Fixture/Lamp	450	Units	879	$ 230
140 Watt NC Fixture	100	Units	861	$ 225
320 to 160 Watt Fixture/Lamp	500	Units	1,085	$ 280
160 Watt NC Fixture	200	Units	964	$ 250
400 to 175 Watt Fixture/Lamp	1,500	Units	1,444	$ 375
575 to 300 Watt Fixture/Lamp	30	Units	1,540	$ 400
750 to 300 Watt Fixture/Lamp	30	Units	2,891	$ 750
1000 to 400 Watt Fixture/Lamp	200	Units	3,591	$ 930
Sign Lighting	5,000	Units	48	$ 13
1500 to 600 Watt Fixture/Lamp	100	Units	5,006	$ 1,300
Networked Lighting Controls	1,500	Units	324	$ 85

TABLE 47 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE LIGHTING PROGRAM REVISIONS

Measure Description	2022	2023
Interior Lighting		
T8 TLED 2’	$ 7.50	$ 9
T8 TLED 3’	$ 10.00	$ 11
T8 TLED 4’	$ 12.50	$ 14
T8 LED 8’	$ 23.00	$ 27
T8 LED U-bend	$ 13.50	$ 15
T5 LED 4’	$ 14.00	$ 17

Measure Description	2022	2023
T5HO TLED	$ 25.00	$ 35
T8/T5 TLED	$ 4.00	$ 5
Four-Pin Plug-In LED	$ 15.00	$ 18
9W MR16	$ 55.00	$ 60
2x4 LED Fixture	$ 30.00	$ 36
2x2 LED Fixture	$ 35.00	$ 40
1x4 LED Fixture	$ 55.00	$ 60
8' LED Fixture	$ 85.00	$ 100
4T5HO to 135W LED Fixture	$ 185.00	$ 210
6T5HO to 165W LED Fixture	$ 235.00	$ 265
140W Fixture/Lamp	$ 285.00	$ 325
175W Fixture/Lamp	$ 450.00	$ 560
400W Fixture/Lamp	$ 50.00	$ 60
12-20W LED Fixture Retrofit	$ 70.00	$ 150
Occupancy Sensors	$ 7.50	$ 9
LLLC Fixture	$ 10.00	$ 11
Exterior Lighting		
25W Fixture	$ 75.00	$ 85
30W Fixture	$ 100.00	$ 120
50W Fixture	$ 160.00	$ 180
100W Fixture	$ 160.00	$ 180
100W NC Fixture	$ 150.00	$ 170
140W Fixture	$ 200.00	$ 230
140W NC Fixture	$ 195.00	$ 225
160W Fixture	$ 250.00	$ 280
160W NC Fixture	$ 220.00	$ 250
175W Fixture	$ 330.00	$ 375
300W Fixture	$ 350.00	$ 400
300W Fixture	$ 660.00	$ 750
400W Fixture	$ 825.00	$ 930
Sign Lighting	$ 11.00	$ 13

Commercial/Industrial Direct Install Lighting Program

Program Description

Avista will partner with Resource Innovations to implement the Direct Install Lighting Program to supplement and enhance Avista's ongoing customer engagement and energy efficiency efforts. This lighting program will include installing appropriate energy-saving lighting measures at each customer location, conducting a brief onsite audit to identify customer opportunities and interest in one or more of Avista's current programs, and providing materials and contact information so customers can follow up with additional energy efficiency measures under the current programs. The direct install methodology increases customer engagement by driving customers to Avista's existing programs and boosts local markets by endorsing local businesses and trade allies and providing training and upskilling opportunities.

Program Manager

Rachelle Humphrey

TABLE 48 – COMMERCIAL/INDUSTRIAL DIRECT INSTALL LIGHTING PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		2,475,000
Incentives	$	1,237,500
Non-Incentive Utility Costs	$	295,977
Total Costs	$	1,533,477
Non-Energy Impacts	$	558,620
Cost-Effectiveness		
Total Resource Cost		2.27
Utility Cost Test		1.60

Program Implementation

Avista and Resource Innovations will develop the engagement procedures for the direct installation and audit approach to market and implement the Direct Install Lighting Program. Resource Innovations will utilize the iEnergy software platform to streamline customer eligibility, maintain data integrity, and lower administrative costs. Specifically, the development of the iEnergy OnSite tool will allow trade allies to conduct customer eligibility checks, complete surveys and enrollment, perform facility walkthrough assessments, and project scope creation and costs. It will also capture all applicable lighting program data, track equipment that's removed and installed, calculate site-specific savings, generate customer-facing reports, and allow for quality control reviews and inspections as required.

Program Eligibility

This program will provide a valuable service to small and medium retail electric customers, as well as certain residential and farm general service customers in its Washington service territory, under rate schedules 11 or 12. Resource Innovations will use ZIP codes and city identifiers to "cluster" eligible customers geographically and establish an efficient routing for door-to-door marketing, installations, and/or audits. Table 49 shows the estimated annual savings and the value of the direct installation (direct benefit to customer, or DBtC) for the lighting program. DBtC amounts represent the total cost of the program outside of allocated program administrative costs.

TABLE 49 – COMMERCIAL/INDUSTRIAL DIRECT INSTALL LIGHTING PROGRAM MEASURES AND DIRECT BENEFIT TO CUSTOMER

	Projected Participation	Annual Savings	Annual DBtC
Direct Installation – LED Lighting and Controls	99 Projects	2,475,000	$ 1,237,500

Commercial/Industrial Prescriptive HVAC Variable Frequency Drive Program

Program Description

The Prescriptive HVAC Variable Frequency Drive Program is intended to prompt customers to increase the energy efficiency of their HVAC fan or pump applications with a Variable Frequency Drive (VFD) retrofit. Adding a VFD to HVAC systems is an effective tool for cutting operating costs, improving overall system performance, and reducing wear and tear on motors. The prescriptive rebate approach issues payment to the customer after the measure has been installed. Commercial customers who use Avista electricity and apply the VFD to the eligible fan or pump measures are eligible for this program.

Program Manager

Greta Zink

TABLE 50 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE HVAC VFD PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		773,800
Incentives	$	120,000
Non-Incentive Utility Costs	$	50,801
Total Costs	$	170,801
Non-Energy Impacts	$	2,166
Cost-Effectiveness		
Total Resource Cost		6.39
Utility Cost Test		5.67

Program Implementation

The Prescriptive HVAC Variable Frequency Drive Retrofit Program is offered for retrofitting VFDs on existing HVAC equipment. Customers must submit a completed rebate form, invoices, and documentation to verify the horsepower of the motor on which the VFD was installed within 90 days of installation. Each rebate will be qualified and processed within iEnergy with the current-year calculator. Avista will send incentive checks to customers or their designees after each project is approved. Rebates will not exceed the total amount on the invoice. All VFD projects will have an installation verification inspection before the check is issued. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 51 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE HVAC VFD PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
HVAC Cooling Pump	200	Units	1,091	$	200
HVAC Fan	200	Units	1,022	$	200
HVAC Heating Pump or Combo	200	Units	1,756	$	200

Commercial/Industrial Prescriptive Shell Program

Program Description

The Commercial Prescriptive Shell Program offers incentives to commercial customers who improve the envelopes of their existing buildings by adding insulation, which may make a business more energy-efficient and comfortable. This prescriptive rebate approach issues payment to the customer after the measure has been installed by a licensed contractor. Commercial customers must have an annual heating footprint for a fuel provided by Avista.

Program Manager

Greta Zink

TABLE 52 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE SHELL PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		321,000
Incentives	$	165,000
Non-Incentive Utility Costs	$	33,564
Total Costs	$	198,564
Non-Energy Impacts		TBD
Cost-Effectiveness		
Total Resource Cost		5.08
Utility Cost Test		3.22

Program Implementation

Customers must submit a completed rebate form, invoices, and an insulation certificate within 90 days after the installation has been completed. Avista will send incentive checks to customers or their designees after each project is approved. Rebates will not exceed the total amount on the invoice. Each rebate will be qualified and processed within iEnergy with the current-year calculator. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 53 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE SHELL PROGRAM MEASURES AND INCENTIVES

	Projected Participation	kWh Savings	Incentives
Less than R11 Attic Insulation (E/E) to R30-R44 Attic Insulation	30,000 Sq. Ft.	1.02 per Sq. Ft	$ 1.00 per Sq. Ft
Less than R11 Attic Insulation (E/E) to R45+ Attic Insulation	30,000 Sq. Ft.	1.39 per Sq. Ft	$ 1.25 per Sq. Ft
Less than R11 Roof Insulation (E/E) to R30+ Roof Insulation	30,000 Sq. Ft.	1.36 per Sq. Ft	$ 1.00 per Sq. Ft
Less than R4 Wall Insulation (E/E) to R11-R18 Wall Insulation	30,000 Sq. Ft.	2.82 per Sq. Ft	$ 1.00 per Sq. Ft
Less than R4 Wall Insulation (E/E) to R19+ Wall Insulation	30,000 Sq. Ft.	4.1 per Sq. Ft	$ 1.25 per Sq. Ft

Incentive Revisions

TABLE 54 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE SHELL PROGRAM INCENTIVE REVISIONS

	2022	2023
Less than R11 Attic Insulation (E/E) to R30-R44 Attic Insulation	$ 0.60 per Sq. Ft.	$ 1.00 per Sq. Ft
Less than R11 Attic Insulation (E/E) to R45+ Attic Insulation	$ 0.85 per Sq. Ft	$ 1.25 per Sq. Ft
Less than R11 Roof Insulation (E/E) to R30+ Roof Insulation	$ 0.60 per Sq. Ft	$ 1.00 per Sq. Ft
Less than R4 Wall Insulation (E/E) to R11-R18 Wall Insulation	$ 0.60 per Sq. Ft	$ 1.00 per Sq. Ft
Less than R4 Wall Insulation (E/E) to R19+ Wall Insulation	$ 0.65 per Sq. Ft	$ 1.25 per Sq. Ft

Commercial/Industrial Food Services Program

Program Description

The Commercial Food Service Equipment Program offers incentives for commercial customers who purchase or replace food service equipment with ENERGY STAR-qualified equipment. This prescriptive rebate approach issues payment to the customer after the measure has been installed. Commercial customers who use Avista electricity to operate the equipment submitted for a rebate are eligible for this program.

Program Manager

Greta Zink

TABLE 55 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE FOOD SERVICES PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		177,777
Incentives	$	36,904
Non-Incentive Utility Costs	$	7,093
Total Costs	$	43,998
Non-Energy Impacts	$	87,861
Cost-Effectiveness		
Total Resource Cost		6.41
Utility Cost Test		3.07

Program Implementation

Customers must submit a completed rebate form and invoices within 90 days after the installation has been completed. Avista will send incentive checks to the customers or their designees after each project is approved. Rebates will not exceed the total amount on the invoice. Each rebate will be qualified and processed within iEnergy with the current-year calculator. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 56 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE FOOD SERVICES PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
0.81 to 1.00 GPM Electric Pre-Rinse Sprayer	2	Units	570	$	50
3-4 Pan Electric Steamer	2	Units	4,575	$	1,300
5-6 Pan Electric Steamer	2	Units	9,274	$	2,200
7-12 Pan Electric Steamer	2	Units	16,573	$	3,315
On-Demand Commercial Overwrapper	10	Units	1,584	$	300
Efficient Electric Convection Oven Full Size	2	Units	1,496	$	200
Efficient Hot Food Holding Cabinet, 1/2 Size	1	Unit	398	$	300
Efficient Hot Food Holding Cabinet, Full Size	1	Unit	1,016	$	575
Efficient Hot Food Holding Cabinet, Double Size	1	Unit	608	$	1,000
Standard Efficiency Appliance to H.E. Electric Griddle, 70% Efficiency or Better	2	Units	1,637	$	250
High Temp Electric Hot Water Dishwasher	2	Units	4,110	$	750
Low Temp Electric Hot Water Dishwasher	2	Units	3,801	$	750
Combination Oven Electric 3-4 Pans	2	Units	1,307	$	1,000
Combination Oven Electric 5-14 Pans	2	Units	6,428	$	1,000
Combination Oven Electric 15-28 Pans	2	Units	5,640	$	1,000

	Projected Participation		Per-Unit kWh Savings	Incentive	
Combination Oven Electric 29-40 Pans	2	Units	11,634	$	1,000
Batch-IMH-300	2	Units	230	$	200
Batch-IMH-800	2	Units	197	$	200
Batch-IMH-1500	2	Units	709	$	200
Batch-IMH-4000	2	Units	1,576	$	200
Batch-RCU-988	2	Units	191	$	200
Batch-RCU-4000	2	Units	484	$	200
Batch-SCU-110	2	Units	56	$	200
Batch-SCU-200	2	Units	251	$	200
Batch-SCU-4000	2	Units	505	$	200

Incentive Revisions

As part of Avista's annual planning process, many measures within the food services program were updated to the latest RTF workbooks which provided updated measure categories. These updated definitions impacted the size of hot food holding carts and steamers. In addition, Avista has added several definitions for ice makers to be consistent with RTF measure listings. The incentive levels for these ice makers remained the same; however, Avista's TRM will now track several technology and batch quantity types. Efficient convection ovens were decreased for 2023 due to kWh savings values provided by the RTF. Equipment in this program will be moved to the new Midstream Program sometime in 2023. Details will be finalized in late 2022.

Commercial/Industrial Green Motors Program

Program Description

The initiative goals of the Green Motors Program are 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 Practices Group (GMPG) 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 organization's standards. Avista joined this effort in offering the program to electric customers who participate in the green rewind program for 15-5,000 HP industrial motors. This program provides an opportunity for Avista customers to participate in a regional effort. Without it, this market is difficult for the company to reach as a local utility. Avista commercial electric customers are eligible for this program. Incentives are paid as a credit off the invoice at the time of the rewind. A $1 per horsepower incentive goes to the customer; $1 per horsepower to the service center.

Program Manager

Greta Zink

TABLE 57 – COMMERCIAL/INDUSTRIAL GREEN MOTORS PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		51,193
Incentives	$	5,710
Non-Incentive Utility Costs	$	4,329
Total Costs	$	10,039
Non-Energy Impacts	$	503
Cost-Effectiveness		
Total Resource Cost		2.99
Utility Cost Test		3.36

Program Implementation

This program is implemented and administered by the GMPG from inception to rebate payment. There is an administration fee based on the kWh savings for the organization. The incentive is split between the service center and the customer. Customers receive their incentive as an immediate discount off their bill. The Energy Efficiency Program management team oversees the contract, monitors the program, and qualifies and processes the monthly projects within iEnergy with the current-year calculator. The program is promoted by GMPG, participating service centers, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

Measures and Incentives

The incentive for this program is $1 per HP of the motor being rewound, up to $10,000 for 5,000 HP, and is taken directly off the customer bill at the service center. There is also a $1 per HP fee paid to the service center for participating.

TABLE 58 – COMMERCIAL/INDUSTRIAL GREEN MOTORS PROGRAM MEASURES AND INCENTIVES

	Projected Participation	Per-Unit kWh Savings	Incentive
15 HP Industrial	2 Units	525	$ 30
20 HP Industrial	2 Units	703	$ 40
25 HP Industrial	2 Units	893	$ 50
30 HP Industrial	2 Units	962	$ 60
40 HP Industrial	2 Units	1,121	$ 80
50 HP Industrial	2 Units	1,206	$ 100
60 HP Industrial	2 Units	1,269	$ 120

	Projected Participation		Per-Unit kWh Savings	Incentive	
75 HP Industrial	2	Units	1,305	$	150
100 HP Industrial	2	Units	1,723	$	200
125 HP Industrial	1	Unit	1,990	$	250
150 HP Industrial	1	Unit	2,366	$	300
200 HP Industrial	0	Unit	3,138	$	400
250 HP Industrial	1	Unit	3,799	$	500
300 HP Industrial	0	Unit	4,535	$	600
350 HP Industrial	0	Unit	5,287	$	700
400 HP Industrial	1	Unit	5,994	$	800
450 HP Industrial	0	Unit	6,732	$	900
500 HP Industrial	1	Unit	7,491	$	1,000
600 HP Industrial	1	Unit	10,137	$	1,200
700 HP Industrial	0	Unit	11,777	$	1,400
800 HP Industrial	0	Unit	13,431	$	1,600
900 HP Industrial	0	Unit	15,077	$	1,800
1000 HP Industrial	0	Unit	16,682	$	2,000
1250 HP Industrial	0	Unit	17,812	$	2,500
1500 HP Industrial	0	Unit	21,329	$	3,000
1750 HP Industrial	0	Unit	24,779	$	3,500
2000 HP Industrial	0	Unit	28,201	$	4,000
2250 HP Industrial	0	Unit	31,527	$	4,500
2500 HP Industrial	0	Unit	34,957	$	5,000
3000 HP Industrial	0	Unit	41,686	$	6,000
3500 HP Industrial	0	Unit	48,532	$	7,000
4000 HP Industrial	0	Unit	55,466	$	8,000
4500 HP Industrial	0	Unit	62,269	$	9,000
5000 HP Industrial	0	Unit	69,044	$	10,000

*This incentive includes the $1 per HP fee paid to the service center for participating.

Incentive Revisions

None

Commercial/Industrial Compressed Air Program

Program Description

Targeting commercial compressed-air customers, this program is the direct installation of a programmable compressed-air leak-reduction device that generates energy savings by reducing the impact of compressed-air leaks during off-hour periods. The cost of the installation will be the customer rebate with no actual money going to the customer. In mid-2022, Avista added another component to this program for compressed air leak detection. Incentives are paid for the repair of leaks identified by an audit from a preliminary acoustic imaging detector, followed by a second audit that verifies the repair of those leaks. Avista commercial electric customers are eligible for this program.

Program Manager

Greta Zink

TABLE 59 – COMMERCIAL/INDUSTRIAL COMPRESSED AIR PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		42,000
Incentives	$	10,080
Non-Incentive Utility Costs	$	1,839
Total Costs	$	11,919
Non-Energy Impacts	$	31,558
Cost-Effectiveness		
Total Resource Cost		6.15
Utility Cost Test		2.94

Program Implementation

The Compressed Air Program is a direct benefit offered to customers who have a qualified compressed-air contractor install a programmable line isolation device on their 15 HP or greater existing rotary screw compressor that is not already shut down daily. The line must have a minimum of two weeks of logging done before the line isolation device is installed and a minimum of two weeks of logging done after installation to show kWh savings. This program is available to all commercial electric customers with compressed-air systems that meet the HP requirement, have rotary screw compressors, and currently do not shut off their systems. Contractors who perform the logging can receive 20¢ per kWh saved, and must submit a completed rebate form, invoice, photos, and logging data with savings report within 90 days after the installation has been completed.

The Compressed Air Leak Detection Program pays $0.23 per kWh for repairing leaks in compressed air systems. First, a preliminary acoustic imaging detector audit is performed, and the report is used to repair the leaks. Then, after the leaks are repaired, a second acoustic imaging detector report is done to identify the repairs and savings. The following must be submitted within 90 days after the repair has been completed: a completed rebate form, invoice, and the pre- and post-acoustic imaging reports that summarize the number of leaks and kWh savings. Avista will send incentive checks to customers or their designees after each project is approved. The incentive will not exceed the total amount on the invoice. Each rebate will be qualified and processed within iEnergy with the current-year calculator. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 60 – COMMERCIAL/INDUSTRIAL COMPRESSED AIR PROGRAM MEASURES AND INCENTIVES

	Projected Participation	Per-Unit kWh Savings	Incentive
Compressed Air	7 Units	6,000	$ 1,440

The incentive amount for this measure covers the cost of the programmable line isolation device as well as installation by a qualified compressed-air contractor.

Incentive Revisions

The line isolation portion of this program will be discontinued for 2023. Projects seeking incentives for line isolation will be accepted under the site-specific program.

Commercial/Industrial Grocer Program

Program Description

This program offers incentives to customers who increase the energy efficiency of their refrigerated cases and related grocery equipment. Refrigeration often represents the primary electricity expense in a grocery store or supermarket. The prescriptive rebate approach issues payment to the customer after the measure has been installed. Commercial customers who use Avista fuel for the measure applied for are eligible.

Program Manager

Greta Zink

TABLE 61 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE GROCER PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		304,199
Incentives	$	9,170
Non-Incentive Utility Costs	$	15,744
Total Costs	$	24,914
Non-Energy Impacts	$	0
Cost-Effectiveness		
Total Resource Cost		7.22
Utility Cost Test		12.05

Program Implementation

Customers must submit a completed rebate form and invoice within 90 days after the installation has been completed. Each rebate will be qualified and processed within iEnergy with the current-year calculator. Avista will send incentive checks to customers or their designees after each project is approved. Rebates will not exceed the total amount on the customer invoice. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 62 – COMMERCIAL/INDUSTRIAL PRESCRIPTIVE GROCER PROGRAM MEASURES AND INCENTIVES

	Projected Participation		Per-Unit kWh Savings	Incentive	
LT Case: T12 to LP LED Inside Lamp	20	Units	104	$	15
MT Case: T12 to LP LED Inside Lamp	20	Units	85	$	15
MT Case: T8 to LED Inside Lamp	5	Units	52	$	10
LT Case: T8 to LP LED Inside Lamp	5	Units	63	$	10
T12 to LP LED Outside Lamp	5	Units	73	$	15
T8 to LP LED Outside Lamp	5	Units	44	$	15
MT Case: 2 T8 to 1 High Power LED Inside Lamp	10	Units	116	$	20
MT Case: 2 T12 to 1 High Power LED Inside Lamp	10	Units	183	$	20
LT Case: 2 T8 to 1 High Power LED Inside Lamp	10	Units	142	$	20
LT Case: 2 T12 to 1 High Power LED Inside Lamp	10	Units	223	$	20
MT Case: 2 T8 to 1 High Power LED Outside Lamp	10	Units	99	$	15
MT Case: 2 T12 to 1 High Power LED Outside Lamp	10	Units	156	$	15
Anti-Sweat Heater Controls – Low Temp	10	Units	312	$	40
Anti-Sweat Heater Controls – Med Temp	10	Units	23,088	$	40
Gaskets for Low Temp Reach-in Glass Doors	2	Units	211	$	40
Gaskets for Medium Temp Reach-in Glass Doors	2	Units	118	$	40

	Projected Participation		Per-Unit kWh Savings	Incentive	
Gaskets for Walk-in Freezer – Main Door	2	Units	711	$	65
Gaskets for Walk-in Cooler – Main	2	Units	394	$	25
Floating Head Pressure for Single Compressor Systems, LT Condensing Unit	2	Units	1,392	$	100
Floating Head Pressure for Single Compressor Systems, LT Remote Condenser	2	Units	2,966	$	100
Floating Head Pressure for Single Compressor Systems, MT Condensing Unit	2	Units	712	$	100
Floating Head Pressure for Single Compressor Systems, MT Remote Condenser	2	Units	2,366	$	100
Strip Curtains for Convenience Store Walk-in Freezers	2	Units	20	$	10
Strip Curtains for Restaurant Walk-in Freezers	2	Units	100	$	10
Strip Curtains for Supermarket Walk-in Coolers	2	Units	80	$	10
Strip Curtains for Supermarket Walk-in Freezers	2	Units	340	$	10
20W ECM replacing 20W Shaded Pole	1	Unit	187	$	100
20W ECM replacing 1/20HP Shaded Pole	1	Unit	503	$	100
20W ECM replacing 1/15HP Shaded Pole	1	Unit	808	$	100
20W ECM replacing 1/20HP Permanent Split Capacitor	1	Unit	255	$	100
20W ECM replacing 1/15HP Permanent Split Capacitor	1	Unit	371	$	100
1/20HP ECM replacing 1/20HP Shaded Pole	1	Unit	377	$	100
1/20HP ECM replacing 1/15HP Shaded Pole	1	Unit	683	$	100
1/20HP ECM replacing 1/20HP Permanent Split Capacitor	1	Unit	130	$	100
1/20HP ECM replacing 1/15HP Permanent Split Capacitor	1	Unit	246	$	100
Medium Temp ECM replacing Shaded Pole 9 W Output Power	1	Unit	361	$	50
Medium Temp ECM replacing Shaded Pole 10 to 15 W Output Power	1	Unit	509	$	50
Medium Temp ECM replacing Shaded Pole 16 to 20 W Output Power	1	Unit	580	$	50
Medium Temp ECM replacing Shaded Pole 20+ W Output Power	1	Unit	551	$	50
Medium Temp ECM replacing Permanent Split Capacitor 9 W Output Power	1	Unit	200	$	50
Medium Temp ECM replacing Permanent Split Capacitor 10 to 15 W Output Power	1	Unit	171	$	50
Medium Temp ECM replacing Permanent Split Capacitor 16 to 20 W Output Power	1	Unit	232	$	50
Medium Temp ECM replacing Permanent Split Capacitor 20+ W Output Power	1	Unit	190	$	50
Medium Temp PMSM replacing Shaded Pole 9 W Output Power	1	Unit	376	$	50

	Projected Participation	Per-Unit kWh Savings	Incentive
Medium Temp PMSM replacing Shaded Pole 10 to 15 W Output Power	1 Unit	530	$ 50
Medium Temp PMSM replacing Permanent Split Capacitor 9 W Output Power	1 Unit	215	$ 50
Medium Temp PMSM replacing Permanent Split Capacitor 10 to 15 W Output Power	1 Unit	192	$ 50
Medium Temp PMSM replacing Electronically Commutated 9 W Output Power	1 Unit	15	$ 50
Medium Temp PMSM replacing Electronically Commutated 10 to 15 W Output Power	1 Unit	21	$ 50
Low Temp ECM replacing Shaded Pole 9 W Output Power	1 Unit	500	$ 50
Low Temp ECM replacing Shaded Pole 10 to 15 W Output Power	1 Unit	705	$ 50
Low Temp ECM replacing Shaded Pole 16 to 20 W Output Power	1 Unit	805	$ 50
Low Temp ECM replacing Shaded Pole 20+ W Output Power	1 Unit	764	$ 50
Low Temp ECM replacing Permanent Split Capacitor 9 W Output Power	1 Unit	277	$ 50
Low Temp ECM replacing Permanent Split Capacitor 10 to 15 W Output Power	1 Unit	237	$ 50
Low Temp ECM replacing Permanent Split Capacitor 16 to 20 W Output Power	1 Unit	322	$ 50
Low Temp ECM replacing Permanent Split Capacitor 20+ W Output Power	1 Unit	263	$ 50
Low Temp PMSM replacing Shaded Pole 9 W Output Power	1 Unit	521	$ 50
Low Temp PMSM replacing Shaded Pole 10 to 15 W Output Power	1 Unit	735	$ 50
Walk-In Cooler Evaporator Fan Motor – 20W Shaded Pole to 20W ECM	1 Unit	522	$ 100
Walk-In Cooler Evaporator Fan Motor – 20W Shaded Pole to 1/20 HP ECM	1 Unit	286	$ 100
Walk-In Cooler Evaporator Fan Motor – 20W Shaded Pole to 1/15 HP ECM	1 Unit	(1)	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/20 HP Shaded Pole to 20W ECM	1 Unit	1,256	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/20 HP Shaded Pole to 1/20 HP ECM	1 Unit	1,019	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/20 HP Shaded Pole to 1/15 HP ECM	1 Unit	732	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/15 HP Shaded Pole to 20W ECM	1 Unit	1,856	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/15 HP Shaded Pole to 1/20 HP ECM	1 Unit	1,620	$ 100
Walk-In Cooler Evaporator Fan Motor – 1/15 HP Shaded Pole to 1/15 HP ECM	1 Unit	1,332	$ 100

	Projected Participation	Per-Unit kWh Savings	Incentive
Walk-In Freezer Evaporator Fan Motor – 20W Shaded Pole to 20W ECM	1 Unit	694	$ 100
Walk-In Freezer Evaporator Fan Motor – 20W Shaded Pole to 1/20 HP ECM	1 Unit	380	$ 100
Walk-In Freezer Evaporator Fan Motor – 20W Shaded Pole to 1/15 HP ECM	1 Unit	(2)	$ 100
Walk-In Freezer Evaporator Fan Motor – 1/20 HP Shaded Pole to 20W ECM	1 Unit	1,669	$ 100
Walk-In Freezer Evaporator Fan Motor – 1/20 HP Shaded Pole to 1/20 HP ECM	1 Unit	1,354	$ 100
Walk-In Freezer Evaporator Fan Motor – 1/20 HP Shaded Pole to 1/15 HP ECM	1 Unit	973	$ 100
Walk-In Freezer Evaporator Fan Motor – 1/15 HP Shaded Pole to 20W ECM	1 Unit	2,466	$ 100
Evaporator Fan ECM Motor Controller – Walk-In – Medium Temp – >44 Watt – 2 or more Motors/Controller	1 Unit	688	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Medium Temp – 24-43 Watt – 2 or more Motors/Controller	1 Unit	254	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Low Temp – >44 Watt – 3 or more Motors/Controller	1 Unit	304	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Low Temp – 24-43 Watt – 3 or more Motors/Controller	1 Unit	203	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Medium Temp – ≤23 Watt – 5 or more Motors/Controller	1 Unit	150	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Low Temp – ≤23 Watt – 7 or more Motors/Controller	1 Unit	119	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Medium Temp – >44 Watt – 1 or 2 Motors/Controller	1 Unit	688	$ 50
Evaporator Fan ECM Motor Controller – Walk-In – Medium Temp – 24-43 Watt – 1 or 2 Motors/Controller	1 Unit	254	$ 50

Incentive Revisions

Three new measures will be introduced for adding doors to condensing refrigerated cases with low to medium temperatures, across a range of horizontal and vertical configurations. The three incentives range from $175 to $225 per unit.

Commercial/Industrial Appliance and HVAC Controls Program

Program Description

This program offers incentives to Avista commercial customers who install front-loading ENERGY STAR commercial clothes washers and/or smart thermostats. The prescriptive rebate approach issues payment to the customer after the measure has been installed. This program also offers incentives to Avista commercial customers who retrofit an existing thermostat that is not capable of connecting to the internet. The primary target for thermostats incentivized under this program is small commercial spaces that have single zone heating systems in a conditioned space and are not occupied 24/7. Hotel and motel customers are not eligible for thermostats, but they can apply for incentives for washers under this program. The prescriptive rebate approach issues payment to the customer after the measures have been installed.

Program Manager

Greta Zink

TABLE 63 – COMMERCIAL/INDUSTRIAL APPLIANCE AND HVAC CONTROLS PROGRAM METRICS

Projected Program Metrics		
Overall kWh Savings		94,446
Incentives	$	36,000
Non-Incentive Utility Costs	$	1,966
Total Costs	$	37,966
Non-Energy Impacts	$	0
Cost-Effectiveness		
Total Resource Cost		1.09
Utility Cost Test		0.98

Program Implementation

To be eligible for thermostat incentives in this program, Avista commercial customers need to install a thermostat that is web-based with remote programming capabilities. The program also requires that the thermostat control a single HVAC system with its own supply fan, serving a single conditioned space.

Qualified thermostats must have these capabilities:

- Multiple temperature set-back schedules
- Fan-mode scheduling (continuous-on versus auto mode)
- Limited-duration overrides (reverts to programming after 24 hours)
- Remote monitoring and programming (web-based)
- Automatic restoration after power outage
- Support multiple cooling stages

Initial programming must be set up at the time of installation and include:

- Scheduled temperature setback
- Scheduled fan mode
- Override duration ≤ 3 hours
- Strip heat lockout (HP only)
- No simultaneous heating and cooling

Customers must submit a completed rebate form and invoice within 90 days after the installation has been completed. Each rebate will be qualified and processed within iEnergy with the current-year calculator. Avista will send incentive checks to customers or their designees after each project is approved. Rebates will not exceed the total amount on the customer invoice. This program is promoted by trade allies, Avista account executives, the Avista website, and Avista marketing efforts. The website is also used to communicate program requirements, incentives, and forms.

TABLE 64 – COMMERCIAL/INDUSTRIAL APPLIANCE AND HVAC CONTROLS PROGRAM MEASURES AND INCENTIVES

Measure Name	2022	2023	Notes
Commercial Washer ENERGY STAR Front Load	0	$ 200	New Program
Commercial Connected Smart Thermostat	0	$ 150	New Program

Commercial/Industrial Pilot Programs and Potential New Programs

For 2023, Avista is exploring multiple pilot programs for commercial/industrial customers. The progress of these new and pilot programs is shared regularly with the Energy Efficiency Advisory Group. The pilot programs listed below are in addition to pilot programs Avista is developing related to CETA as well as those the company is developing for residential customers.

Commercial/Industrial Pay for Performance

Program Description

The Pay for Performance Program is an incentive program that pays customers for actual energy savings at the meter. Energy savings can come from building retrofits and equipment upgrades, as well as from behavioral, operations and maintenance, and retro-commissioning activities. The Pay for Performance Program pays annual incentives for all electricity/natural gas saved, rather than separate incentives for individual measures. Qualifying customers that implement whole-building energy retrofits will receive a set incentive rate for measurable savings achieved over the course of three years, with incentive payments made at the end of each year. Incentives will be paid at .08 per kWh and 1.25 per therm.

Program Implementation

This program is available for any Avista commercial customers who own or operate buildings with at least 20,000 square feet of heated or cooled space, and have consistent and measurable energy usage. Buildings must have stable energy use over the past year and be metered separately, preferably with interval meters. To be eligible for this program, planned improvements must identify savings of at least 10 percent of the building's baseline kWh or therm consumption. Customers will need to submit an application with energy saving opportunities. Avista will review the application, and if it is approved, establish baseline usage. A contract will be completed for a three-year period. When customers implement improvements, savings will be measured against the base year. Avista will send payment for savings of 10% or more at the meter. The process of measuring savings will be repeated annually at the end of years two and three.

Washington State Clean Buildings Act Early Adopter Incentives

Program Description

Washington State House Bill 1257 was codified into law late in 2019 with active rule-making underway throughout 2020. This law requires existing commercial buildings over 50,000 square feet to comply with established performance standards. Compliance requirements for commercial building owners will be phased in starting in 2026, with all commercial buildings over 50,000 square feet complying by 2028.

The law also includes provisions for incentives to early adopters whose building's baseline energy use exceeds the performance standard target by a certain amount. $75 million is designated to assist building owners in achieving compliance. Early adopter incentives will be administered by utilities.

Energy Use Intensity (EUI) metrics will be used to determine compliance with the performance standard. It has been determined that the Department of Energy's ENERGY STAR Portfolio Manager Tool will be used to calculate the EUI.

The Department of Commerce is responsible for assuring compliance and determining early adopter incentive fund allocations. They've published recommendations for affected building owners to prepare, including benchmarking their buildings through Portfolio Manager and developing and executing an energy efficiency plan. Utilities in Washington play a vital role in working cooperatively with the Department of Commerce to execute the new law and to support building owners as they navigate the compliance process. Avista has identified the three key areas of support shown in Table 65.

TABLE 65 – WASHINGTON STATE CLEAN BUILDINGS ACT EARLY ADOPTER INCENTIVES

Service	Start Date	Prior Service
Pay Early Adopter Incentive	in place	renewable incentives
Portfolio Manager	in place	current program offering since January 2009
Energy Efficiency Engineering Services	in place	current service offered since Avista began Energy Efficiency Programs

Avista preparations completed, identified, or underway:

1. Actively participate in Department of Commerce rule-making meetings
2. Actively participate in HB1257 utility working group meetings
3. Provide information and gain customer feedback at Spokane Building Owners & Managers Association (BOMA), Washington Association of Maintenance and Operation Administrators (WAMOA), and other industry meetings
4. Identified affected buildings in service area
    - Initial search with internal GIS tools
    - Work with Department of Commerce
5. Identified current Portfolio Manager customers affected by the law
6. Determine potential additional program offerings to help customers meet targets
7. Completed an outreach and communications materials
    - Target known affected customers through account executives
    - Provide broader awareness with reference materials on website
8. Payment process and procedures created that include the following:
    - Set up proper internal accounting
    - Develop reporting tools and process

The goal of this pilot is to further explore ways to encourage customers to comply with the law before it goes into effect. Through earlier participation in these programs, customers will experience fewer disruptions in their operations and avoid unwanted penalties for not complying with HB 1257.

Active Energy Management Pilot

Program Description

CETA places aggressive targets on decarbonization of the electric grid and overall energy efficiency of the building sector. This legislation will increase the renewable mix on the grid, and could have significant operational impacts on utilities in managing more distributed and variable generation resources. To minimize impacts on customers' energy rates, Avista seeks innovative programs to cost-effectively reduce energy consumption. One potential way to further take advantage of efficiency programs is to implement continuous building monitoring to improve performance in real time, a concept referred to as Active Energy Management (AEM). The goal is a deeper understanding of how building energy demand may shift or flex based on potential tariffs, incentives, technologies, and building occupant behaviors.

The AEM Pilot Program will use the communication networks in Avista's eco-district,[4] as well as cloud services and data-mining algorithms, to capture, process, and disseminate information on ways to improve a building's energy usage to participants in the program. Potential building efficiency actions will be generated based on building data from the Scott Morris Center for Energy Innovation and the Catalyst building, both of which are located inside the eco-district, as well as data from up to 10 participating pilot program buildings located outside of the eco-district. Information to increase energy efficiency will be shared with participating pilot program buildings.

This pilot program will seek to achieve the following objectives:

- **Support customers in identifying and implementing operational energy efficiency opportunities and demonstrate the cost-effectiveness of those efficiency savings.** This pilot most closely resembles monitoring-based commissioning or strategic energy management programs currently deployed in other utilities, but with a slightly different approach, which aggregates data from multiple buildings.
- **Build capacity of Avista account management and energy efficiency resources.** This model is intended to support the Avista account management and energy efficiency teams in deepening their understanding of facility operations and energy efficiency opportunities through hands-on training. An outcome of this pilot will be a deeper understanding of the organizational capability of Avista to support this level of customer engagement.
- **Share facility data with relevant Avista teams for R&D purposes.** Facility operating information can be used to model new customer programs, such as time-of-use rates or Demand Response (DR) incentives. It can also replace assumed data in models and optimization tools.
- **Increase customer satisfaction and engagement.** The hands-on components of this program are designed to build trust between Avista energy efficiency team members and building operators. This relationship will increase satisfaction with Avista and engagement by building owners and operators in other Avista programs.

As a proof-of-concept pilot, Avista aims to evaluate the program by providing sufficient information to better understand the potential energy savings of implementing AEM, the associated cost per kWh saved compared to alternative approaches to acquiring savings, and the resources needed to adequately and effectively engage with customers. The AEM Pilot Program will also establish a set of metrics to baseline as well as a set of quarterly reports to illustrate the effectiveness of the program.

4) As an example of Avista's commitment to leadership in innovation and clean energy, the company designed, owns, and operates an "eco-district development" in Spokane's University District. Funded by shareholder investment, it illustrates how net-zero and carbon-free technology can be economically sustainable.

Energy Use Index Retrofit Pilot

The Energy Use Index (EUI) Retrofit Pilot Program will encourage customers to use their energy more efficiently. The pilot uses a pay-for-performance approach with the goal of saving 50 percent of the customer's previous energy use. To participate, the facility must retrofit at least 25 percent of its useable square footage, and there must be a way to accurately measure the treatment area's performance. Limited to five customers, this pilot is modeled on the EUI pilot program for recently completed new construction, and can play a part in capturing savings from buildings not currently addressed by HB-1257's scope. Buildings of all sizes will be eligible for this pilot.

A primary goal of this pilot is to identify whether performance-based incentives can encourage deep energy savings.

Smart Buildings Center Tool Lending Pilot

The tool lending pilot will be a two-year program that enables Avista customers to borrow tools from a public space in the eco-district. In addition to the company's current stock of energy efficiency-related equipment, the library of tools will include some newer technologies that provide more insight into energy use. Training on the tools – as well as shipping both tools and training materials to customers who are not in the immediate area – will also be included. Work is underway to make this an extension of the NEEC program, in order to take advantage of the work that has already been done in the Northwest and limit the cost to Avista while offering a more robust tool set. Avista is hoping to learn whether customers value this service as part of their energy management efforts. Throughout the pilot period, Avista will track the number of customers that participate in the program.

REGIONAL MARKET TRANSFORMATION

REGIONAL MARKET TRANSFORMATION

Avista's local energy efficiency portfolio seeks to influence customers to purchase 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 often do, create permanent changes in how customers make energy choices, it is generally not feasible for Avista to design local programs to influence markets that are often regional or national in scale.

Market transformation consists of 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 toward sustaining market transformation on a regional basis, with sufficient scale and diversity to deliver a portfolio capable of providing a cost-effective electric-efficiency resource.

Northwest Energy Efficiency Alliance

That organization, NEEA, is currently in its sixth funding cycle for 2020-24. Avista has been an active participant and funder of this collaborative effort since its inception. NEEA's 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 the company's Washington customers will continue to benefit from these efforts.

For 2023, Avista's Washington portion of the NEEA's electric budget is expected to be approximately $1,358,000. 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 2023 local portfolio developed within this plan.

Eastside Market Transformation

Avista continues to seek out additional market transformation efforts with a specific focus on energy efficiency measures and solutions that work well in eastern Washington and northern Idaho. This engagement will be complementary to the NEEA's efforts for the broader region. Avista has partnered with Idaho Power to form a collaborative aimed at assessing market transformation opportunities that drive greater local impact and create deeper customer engagement. To do this, Avista and Idaho Power will pilot the application of a market transformation approach that focuses on mid- and upstream interventions to remove market barriers and create lasting change. 2022 was focused on pilot execution and initial assessment of an eastside market transformation approach. The collaborative will test the viability of this localized market transformation approach by conducting a short-term Ductless Heat Pump Pilot. Avista is currently evaluating the results of the 2022 phase, which will better inform future program designs through the eastside collaborative efforts.

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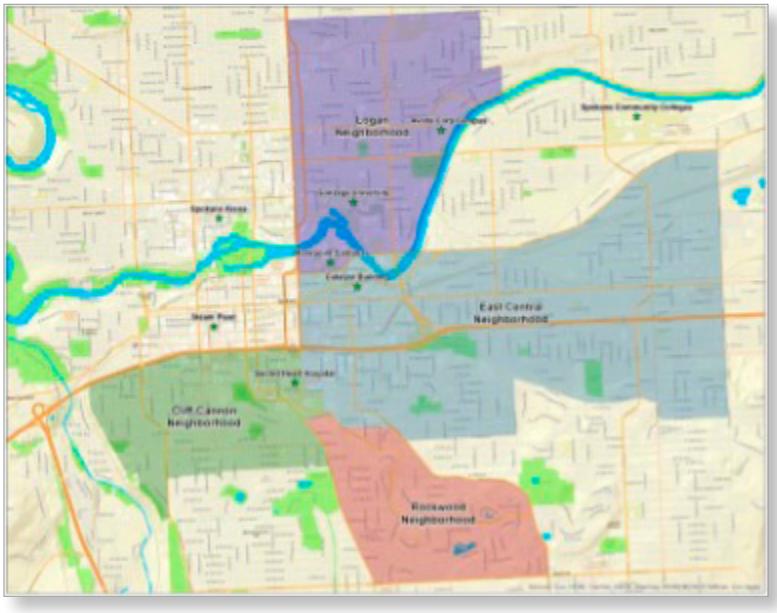
COMPANY INITIATIVES, STUDIES, AND OTHER ITEMS

COMPANY INITIATIVES, STUDIES, AND OTHER ITEMS

Connected Communities

This five-year demonstration project is a partnership between Edo, Avista, McKinstry, Pacific Northwest National Laboratory (PNNL) and Urbanova. It is centered in several of Avista's named communities, including the East Central area, the Logan neighborhood, and the Cliff-Cannon neighborhood – all of which are in Spokane. The project explores and demonstrates clean, equitable products and solutions for commercial and residential customers to optimize grid utilization, increase resiliency, and reduce energy burden. The project also provides the ability to dispatch customer assets to improve grid utilization without compromising customer needs and comfort. This $11.2 million dollar project is funded through a $6.5 million Department of Energy grant, as well as partner contributions. The goal of this project is to advance a new scalable business model that will demonstrate a mutually beneficial framework for the grid, the people it serves (the community), and the built environment.

FIGURE 11 – CONNECTED COMMUNITIES



Microgrid Design Project Partnership

Avista continues to partner with the Spokane Tribe of Indians to design a grid resiliency solution in Wellpinit, WA. This project, funded through a grant from the Department of Commerce Clean Energy Fund with matching provided by Avista, is an effort to develop an energy delivery platform to enhance grid resiliency for Wellpinit and surrounding areas. The infrastructure platform will consist of a micro-grid, a switching station, and a control panel house. The micro-grid will include existing and planned solar generation, as well as planned electrical storage that is interconnected with the utility grid In Wellpinit. The micro-grid platform and switching devices will be configured to create points of integration with Avista's Distribution Management System and SCADA. The project will focus on energy resiliency, while maximizing the value of (a) new and existing solar energy storage, (b) controllable customer loads, and (c) backup generators to support Tribal goals of emergency preparedness, carbon footprint reduction, and self-sufficient strategies to maintain operations during an outage or natural disaster. Avista will consult with Spokane Tribe members and with the equity advisory group regarding design considerations and outreach strategies for the duration of this design project. While the grant does not fund construction, it does create shovel-ready packages of work that, once completed, will provide energy resilience during wildfires, energy independence for critical facilities, and energy billing benefits for customers.

Non-Energy Impacts Study and Gap Analysis

Avista engaged with DNV (formerly DNV-GL) to develop and quantify a list of NEIs for Avista's electric and natural gas programs, along with a gap analysis of areas where future NEI development might exist. These efforts identified several NEIs for low-income, residential, and commercial/industrial customers, including those affecting participants, society, and the utility.

While basic conservation efforts consider the effect energy efficiency measures have on the utility's system by way of deferring capital investments, NEIs provide an opportunity to assign value that is received by the customer. As such, NEI values are included in the TRC cost-effectiveness test as a benefit to the customer. A uniform approach to valuing NEIs has historically proven to be challenging. As new benefits are identified, the quantification of those benefits is not always possible. Moreover, acceptance of specific NEIs varies between regions where there are differing levels of the prevalence of issues mitigated by the measures installed.

As part of Avista's 2022-23 biennial conditions, the company will continue Its efforts to pursue and identify additional non-energy impacts for Its portfolio offerings. Throughout 2023, Avista will continue to work with DNV to develop and identify NEI values, focusing on gaps in its current NEI library. Avista anticipates this work will begin in the first quarter of 2023.

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AVISTA-SPECIFIC METHODOLOGIES AND ANALYTICAL PRACTICES

AVISTA-SPECIFIC METHODOLOGIES AND ANALYTICAL PRACTICES

Over time, Avista has evolved approaches to calculating the various metrics applied within the planning effort to meet the needs of its portfolio and regulation. Care has been taken to ensure that these approaches are consistent with the intent of the NWPCC's methodologies for the analysis of energy efficiency. Avista completes an *Annual Conservation Report* (*ACR*) in the spring of each year, based on 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 – Summarization of Cost Effectiveness Methodology). Since the TRC and UCT tests are the basis for optimizing the portfolio (for reasons previously explained), the explanation of Avista's methodologies, for planning purposes, focus on these 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" in Avista's calculations, include:

- The funding associated with regional programs (NEEA)
- The cost to perform CPA studies
- Costs related to EM&V

Individual measures are aggregated into programs composed of similar measures. At the program level, non-incentive portfolio costs are allocated based on direct assignment to the extent possible, and costs are allocated based on a program's 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.[1] 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 NWPCC methodologies, includes 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 as well as the value of health and human safety funding (on a dollar-for-dollar basis).

For the purposes of calculating TRC cost-effectiveness, any funding obtained from outside of Avista's customer population (generally through tax credits or state- or federally administered programs) is not considered to be a TRC cost. 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.

1) Avista used a discount rate of 4.85% for commercial/industrial programs and 4.56% for residential programs.

Avista's energy efficiency portfolios are built from the bottom up, starting with the identification of prospective efficiency measures based on 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.

Evaluation, Measurement, and Verification

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 the comprehensive analyses and assessments necessary to supply useful information to management and stakeholders that adequately identify 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 evaluation and process evaluation. Taken as a whole, EM&V is analogous with other industry standard terms such as *portfolio evaluation* and *program evaluation*.

To support planning and reporting requirements, several guiding EM&V documents are maintained and published. This includes the *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 necessary, to inform and benefit the energy efficiency activities. These documents are reviewed and updated regularly, reflecting improvements to processes and protocols.

EM&V efforts will also be applied to evaluating emerging technologies and applications being considered for 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.

Because of the benefits to customers and to the utility, Avista actively participates in regional energy efficiency activities. Avista has a voting role on the RTF, a critical advisory committee to the NWPCC. The RTF oversees 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 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. The *International Performance Measurement and Verification Protocol* serves as the basis of measurement and verification plans developed and applied to Avista programs. In addition, the compilation of EM&V protocols released under the U.S. Department of Energy's Uniform Methods Project will be considered and applied where applicable to support the consistency and credibility of reported results. Verification of a statistically significant number of projects is often extrapolated to perform impact analysis on complete programs, within reasonable standards of rigor and degree of conservatism. This process serves to ensure that Avista will manage its energy efficiency portfolio in a manner consistent with both utility and public interests.

For 2023, Avista has engaged with a single EM&V vendor for both its residential and commercial/industrial program segments.

In order to align the performance of Avista's low-income conservation programs with other energy burden reduction goals set out in CETA and in this *ACP*, Avista intends to start measuring and reporting metrics related to energy burden reduction. The primary goal is to measure the true energy burden reduction resulting from Avista's programs, specifically for high-burden households. A secondary goal is to diagnose issues with program operations, design, marketing, or access for high-burden households. The exact mechanism for including energy burden metrics in the EM&V process is yet to be determined but would include integrated equity-aware program evaluations, as well as separate energy burden assessments and potential studies.

Cost-Effectiveness Metrics, Methodology, and Objectives

Avista's planning approach aims to maximize cost-effective conservation acquired by analyzing the cost-effectiveness of each segment (residential, low-income, and commercial/industrial), as well as the ways in which measures within programs contribute to the cost-effectiveness of that segment and eventually the individual portfolios. NEIs are a common topic of discussion in many energy-evaluation circles and Avista has made effective changes to the inclusion of NEIs (see the section on Non-Energy Impacts). The company is appreciative of the valuable work the RTF has done to quantify NEIs for the region and where values have not been identified, Avista will look to the RTF to supplement values. The company views these efforts as an iterative process and expects that more discovery will take place in the future.

As with other utilities in the region, Avista actively participates in RTF meetings and provides measure-level data back to the RTF to further refine its estimates. The company acknowledges that it has the responsibly to use the best available data no matter the source; at times, that comes from internal estimates. Avista will continue to work with members from the RTF to identify measures or technologies that may have gaps in data and provide information where needed. These efforts further refine the RTF measures and form UES values that are more specific to Avista's service territory.

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. Avista will continue to work with stakeholders as conversations around cost-effectiveness arise.

Energy Efficiency at Power Production Facilities

As required by the company's *BCP* Conditions, Avista continues to review the feasibility of pursuing cost-effective conservation in the form of reductions in electric power consumption, resulting from increases in the efficiency of energy use at electric power production facilities it owns in whole or in part.[2] Avista meets with its generation engineering team on an annual basis to discuss potential projects that may lead to energy efficiency at facilities it manages or owns. While the generation team is primarily focused on providing safe and reliable power, they understand the benefit of efficiency and how those levels contribute to the regional clean energy goal. Avista will continue to work with its generation team to identify potential projects in the next biennium.

Schedule 90 – Energy Efficiency Programs

Avista's electric energy efficiency operations are governed by Schedule 90 tariff requirements. These tariffs (attached to Appendix C) 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.

For 2023, Avista is proposing slight modifications to its tariff rider language to better serve customers with energy efficiency. These modifications include revising demand response language, adding technical resources for grant writing for energy efficiency projects, and removing expired language. The proposed revisions are included in Appendix C to this plan.

Schedule 91 – Demand Side Management Rate Adjustment

WAC 480-100-130(2) requires the utility to file on or before June 1 every year to true up the rider balance with an August 1 effective date. On April 29, 2022, Avista filed, in Docket UE-220314, a request for exemption from the annual requirement to file revisions to its schedule indicating that its current tariff rider balance was aligned with its expectations. The WUTC approved this request via Order No. 01 on July 28, 2022. Avista will revisit its need to revise its Schedule 90 rates on or before June 1, 2023 as per WAC 480-100-130(2).

2) UE-19092 Attachment A – Condition 12a

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CONCLUSION AND CONTACT INFORMATION

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This 2023 *ACP* represents program efforts by Avista to achieve its expected eligible acquisition savings for the second year of the 2022-23 biennium. In addition, the plan is designed to identify various activities that promote and support energy efficiency for the transition to clean energy, for reduction of energy costs for customers, and deferral of investments in Avista's energy system. For additional supporting information, please see the following appendices:

- Appendix A – 2023 Energy Efficiency Evaluation, Measurement, and Verification Annual Plan
- Appendix B – Cost Effectiveness Methodology
- Appendix C – Washington DSM Tariff Schedules
- Appendix D – Electric Program Summary

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GLOSSARY OF TERMS

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advisory group: Avista's group of external stakeholders who comment about the company's energy efficiency activities.

Active Energy Management (AEM): The implementation of continuous building monitoring to improve building performance in real time.

adjusted market baseline: Based on the RTF guidelines, represents a measurement between the energy efficient measure and the standard efficiency case that is characterized by current market practice or the minimum requirements of applicable codes or standards, whichever is more efficient. When applying an adjusted market baseline, no net-to-gross factor would be applied since the resultant unit energy savings amount would represent the applicable savings to the grid.

Advanced Metering Infrastructure (AMI): Systems that measure, collect and analyze energy usage, from advanced devices such as electricity meters, natural gas meters and/or water meters through various communication media on request or on a predetermined schedule.

Air-Conditioning, Heating, and Refrigeration Institute (AHRI): The trade association representing manufacturers of HVAC and water heating equipment within the global industry.

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

American National Standards Institute (ANSI): A source for information on national, regional, and international standards and conformity assessment issues.

American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE): Devoted to the advancement of indoor-environment-control technology in the heating, ventilation, and air conditioning (HVAC) industry, ASHRAE's mission is "to advance technology to serve humanity and promote a sustainable world."

Annual Conservation Plan (ACP): An Avista-prepared resource document that outlines Avista's conservation offerings, its approach to energy efficiency, and details on verifying and reporting savings.

Annual Conservation Report (ACR): An Avista-prepared resource document that summarizes its annual energy efficiency achievements.

Annual Fuel Utilization Efficiency (AFUE): A measurement on how efficient an appliance is in converting the energy in its fuel to heat over the course of a typical year.

avoided cost: An investment guideline, describing the value of conservation and generation resource investments in terms of the cost of more expensive resources that would otherwise have to be acquired.

baseline: Conditions, including energy consumption, which would have occurred without implementation of the subject energy efficiency activity. Baseline conditions are sometimes referred to as "business-as-usual" conditions.

baseline efficiency: The energy use of the baseline equipment, process, or practice that is being replaced by a more efficient approach to providing the same energy service. It is used to determine the energy savings obtained by the more efficient approach.

baseline period: The period of time selected as representative of facility operations before the energy efficiency activity takes place.

Biennial Conservation Plan (BCP): An Avista-prepared resource document that outlines Avista's conservation offerings, its approach to energy efficiency, and details on verifying and reporting savings for a two-year period.

Building Owners & Managers Association (BOMA): An international federation of U.S. local associations and global affiliates that represents the owners, managers, service providers, and other property professionals of all commercial building types.

Business Partner Program (BPP): An outreach effort designed to raise awareness of utility programs and services that can assist rural small business customers in managing their energy bills.

British Thermal Unit (Btu): The amount of heat energy necessary to raise the temperature of one pound of water one degree Fahrenheit (3,413 Btu are equal to one kilowatt-hour).

busbar: The physical electrical connection between the generator and transmission system. Load on the system is typically measured at busbar.

capacity: The maximum power that a machine or system can produce or carry under specified conditions. The capacity of generating equipment is generally expressed in kilowatts or megawatts. In terms of transmission lines, capacity refers to the maximum load a line is capable of carrying under specified conditions.

Clean Energy Implementation Plan (CEIP): Introduced within a subsection of the Clean Energy Transformation Act, a CEIP must describe the utility's plan for making progress toward meeting the clean energy transformation standards while it continues to pursue all cost-effective, reliable, and feasible conservation and efficiency resources.

Clean Energy Transformation Act (CETA): Signed into law in 2019, the Clean Energy Transformation Act requires electric utilities to supply their Washington customers with 100 percent renewable or non-emitting electricity with no provision for offsets.

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

Community Energy Efficiency Program (CEEP): Created by the Washington State Legislature in 2009, CEEP encourages homeowners and small businesses across the state to make energy efficiency retrofits and upgrades.

conservation: According to the Northwest Power Act, any reduction in electric power consumption as a result of increases in the efficiency of energy use, production or distribution.

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

cooling degree days: A measure of how hot the temperature was on a given day or during a period of days. A day with a mean temperature of 80°F has 15 cooling degree days. If the next day has a mean temperature of 83°F, it has 18 cooling degree days.

cost-effective: According to the Northwest Power Act, a cost-effective measure or resource must be forecast to be reliable and available within the time it is needed, and to meet or reduce electrical power demand of consumers at an estimated incremental system cost no greater than that of the least-costly, similarly reliable and available alternative or combination of alternatives.

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

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

deemed savings: Primarily referenced as unit energy savings, an estimate of an energy savings for a single unit of an installed energy efficiency measure that (a) has been developed from data sources and analytical methods that are widely considered acceptable for the measure and purpose, and (b) is applicable to the situation being evaluated.

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

Demand Response (DR): A voluntary and temporary change in consumers' use of electricity when the power system is stressed.

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

Direct Load Control (DLC): The means by which a utility can signal a customer's appliance to stop operations in order to reduce the demand for electricity. Such rationing generally involves a financial incentive for the affected customer.

discount rate: The rate used in a formula to convert future costs or benefits to their present value.

distribution: The transfer of electricity from the transmission network to the consumer. Distribution systems generally include the equipment to transfer power from the substation to the customer's meter.

Distributed Generation (DG): An approach that employs a variety of small-scale technologies to both produce and store electricity close to the end users of power.

Effective Useful Life (EUL): Sometimes referred to as measure life and often used to describe persistence. EUL is an estimate of the duration of savings from a measure.

end-use: A term referring to the final use of energy; it often refers to the specific energy services (for example, space heating), or the type of energy-consuming equipment (for example, motors).

energy assistance advisory group: An ongoing energy assistance program advisory group to monitor and explore ways to improve Avista's Low-Income Rate Assistance Program (LIRAP).

Energy Efficiency Advisory Group (EEAG): A group which advises investor-owned utilities on the development of integrated resource plans and conservation programs.

energy efficiency measure: Refers to either an individual project conducted or technology implemented to reduce the consumption of energy at the same or an improved level of service. Often referred to as simply a "measure."

Energy Independence Act (EIA): Requires electric utilities serving at least 25,000 retail customers to use renewable energy and energy conservation.

Energy Use Intensity (EUI): A metric – energy per square foot per year – that expresses a building's energy use as a function of its size or other characteristics.

evaluation: The performance of a wide range of assessment studies and activities aimed at determining the effects of a program (and/or portfolio) and understanding or documenting program performance, program or program-related markets and market operations, program-induced changes in energy efficiency markets, levels of demand or energy savings, or program cost-effectiveness. Market assessment, monitoring and evaluation, and verification are aspects of evaluation.

Evaluation, Measurement, and Verification (EM&V): Catch-all term for evaluation activities at the measure, project, program and/or portfolio level; can include impact, process, market and/or planning activities. EM&V is distinguishable from Measurement and Verification (M&V) defined later.

ex-ante savings estimate: Forecasted savings value used for program planning or savings estimates for a measure; Latin for "beforehand."

ex-post evaluated estimated savings: Savings estimates reported by an independent, third-party evaluator after the energy impact evaluation has been completed. If only the term "ex-post savings" is used, it will be assumed that it is referring to the ex-post evaluation estimate, the most common usage; from Latin for "from something done afterward."

external evaluators (AKA third party evaluators): Independent professional efficiency person or entity retained to conduct EM&V activities. Consideration will be made for those who are Certified Measurement and Verification Professionals (CMVPs) through the Association of Energy Engineers (AEE) and the Efficiency Evaluation Organization (EVO).

free rider: A common term in the energy efficiency industry meaning a program participant who would have installed the efficient product or changed a behavior regardless of any program incentive or education received. Free riders can be total, partial, or deferred.

generation: The act or process of producing electricity from other forms of energy.

Green Motors Practices Group (GMPG): A nonprofit corporation governed by electric motor service center executives and advisors whose goal is the continual improvement of the electric motor repair industry.

gross savings: The change in energy consumption and/or demand that results from energy efficiency programs, codes and standards, and naturally-occurring adoption which have a long-lasting savings effect, regardless of why they were enacted.

heating degree days: A measure of the amount of heat needed in a building over a fixed period of time, usually a year. Heating degree days per day are calculated by subtracting from a fixed temperature the average temperature over the day. Historically, the fixed temperature has been set at 65 degrees Fahrenheit, the outdoor temperature below which heat was typically needed. As an example, a day with an average temperature of 45 degrees Fahrenheit would have 20 heating degree days, assuming a base of 65 degrees Fahrenheit.

Heating Seasonal Performance Factor (HSPF): Defined as the ratio of heat output over the heating season to the amount of electricity used in air source or ductless heat pump equipment.

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

highly impacted community: a community designated by the Washington Department of Health.

impact evaluation: Determination of the program-specific, directly or indirectly induced changes (e.g., energy and/or demand usage) attributable to an energy efficiency program.

implementer: Avista employees whose responsibilities are directly related to operations and administration of energy efficiency programs and activities, and who may have energy savings targets as part of their employee goals or incentives.

***incremental cost*:** The difference between the cost of baseline equipment or services and the cost of alternative energy-efficient equipment or services.

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

Integrated Resource Plan Technical Advisory Committee (IRP TAC): Advisory committee for the IRP process that includes internal and external stakeholders.

International Performance Measurement and Verification Protocol (IPMVP): A guidance document with a framework and definitions describing the four M&V approaches; a product of the Energy Valuation Organization (www.evo-world.org).

Investor-Owned Utility (IOU): A utility that is organized under state law as a corporation to provide electric power service and earn a profit for its stockholders.

Kilowatt (kW): The electrical unit of power that equals 1,000 watts.

Kilowatt-hour (kWh): A basic unit of electrical energy that equals one kilowatt of power applied for one hour.

Kilo British Thermal Unit (kBtu): Btu, which stands for British thermal units, measures heat energy. Each Btu equals the amount of heat needed to raise one pound of water one degree Fahrenheit; the prefix kilo- stands for 1,000, which means that a kBtu equals 1,000 Btu.

Levelized Cost of Energy (LCOE): The present value of a resource's cost (including capital, financing, and operating costs) converted into a stream of equal annual payments. This stream of payments can be converted to a unit cost of energy by dividing them by the number of kilowatt-hours produced or saved by the resource in associated years. By levelizing costs, resources with different lifetimes and generating capabilities can be compared.

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

Low-Income Home Energy Assistance Program (LIHEAP): Federal energy assistance program, available to qualifying households based on income, usually distributed by community action agencies or partnerships.

Low-Income Rate Assistance Program (LIRAP): LIRAP provides funding (collected from Avista's tariff rider) to CAP agencies for distribution to Avista customers who are least able to afford their utility bill.

market effect evaluation: An evaluation of the change in the structure or functioning of a market, or the behavior of participants in a market, that results from one or more program efforts. Typically, the resultant market or behavior change leads to an increase in the adoption of energy-efficient products, services, or practices.

measure (also Energy Efficiency Measure or "EEM"): Installation of a single piece of equipment, subsystem or system, or single modification of equipment, subsystem, system, or operation at an end-use energy consumer facility, for the purpose of reducing energy and/or demand (and, hence, energy and/or demand costs) at a comparable level of service.

measure life: See Effective Useful Life (EUL).

Measurement and Verification (M&V): A subset of program impact evaluation that is associated with the documentation of energy savings at individual sites or projects, using one or more methods that can involve measurements, engineering calculations, statistical analyses, and/or computer simulation modeling. M&V approaches are defined in the International Performance Measurement and Verification Protocol (IPMVP available at www.evo-world.org).

Megawatt (MW): The electrical unit of power that equals one million watts or one thousand kilowatts.

Megawatt-hour (MWh): A basic unit of electrical energy that equals one megawatt of power applied for one hour.

Named Community: Represents areas within Avista's service territory that are considered to be a highly impacted community or vulnerable population.

net savings: The change in energy consumption and/or demand that is attributable to an energy efficiency program. This change in energy use and/or demand may include, implicitly or explicitly, consideration of factors such as free drivers, non-net participants (free riders), participant and non-participant spillover, and induced market effects. These factors may be considered in how a baseline is defined and/or in adjustments to gross savings values.

Non-Energy Benefit/Non-Energy Impact (NEB/NEI): The quantifiable non-energy impacts associated with program implementation or participation; also referred to as non-energy benefits (NEBs) or co-benefits. Examples of NEIs include water savings, non-energy consumables and other quantifiable effects. The value is most often positive, but may also be negative (e.g., the cost of additional maintenance associated with a sophisticated, energy-efficient control system).

Northwest Energy Efficiency Alliance (NEEA): A nonprofit organization that works to accelerate energy efficiency in the Pacific Northwest through the adoption of energy-efficient products, services, and practices.

Northwest Power and Conservation Council (NWPCC): An organization that develops and maintains both a regional power plan and a fish and wildlife program to balance the environment and energy needs of the Pacific Northwest.

Outside Air Temperature (OAT): Refers to the temperature of the air around an object, but unaffected by the object.

On-Bill Repayment/Financing (OBR): A financing option in which a utility or private lender supplies capital to a customer to fund energy efficiency, renewable energy, or other generation projects. It's repaid through regular payments on an existing utility bill.

portfolio: Collection of all programs conducted by an organization. In the case of Avista, portfolio includes electric and natural gas programs in all customer segments. Portfolio can also be used to refer to a collection of similar programs addressing the market. In this sense of the definition, Avista has an electric portfolio and a natural gas portfolio with programs addressing the various customer segments.

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

process evaluation: A systematic assessment of an energy efficiency program or program component for the purposes of documenting operations at the time of the examination, and identifying and recommending improvements to increase the program's efficiency or effectiveness for acquiring energy resources while maintaining high levels of participant satisfaction.

program: An activity, strategy or course of action undertaken by an implementer. Each program is defined by a unique combination of program strategy, market segment, marketing approach and energy efficiency measure(s) included. Examples are a program to install energy-efficient lighting in commercial buildings and residential weatherization programs.

project: An activity or course of action involving one or multiple energy efficiency measures at a single facility or site.

Regional Technical Forum of the Northwest Power and Conservation Council (RTF): A technical advisory committee to the Northwest Power and Conservation Council established in 1999 to develop standards to verify and evaluate energy efficiency savings.

realization rate: Ratio of ex-ante reported savings to ex-post evaluated estimated savings. When realization rates are reported, they are labeled to indicate whether they refer to comparisons of (1) ex-ante gross reported savings to ex-post gross evaluated savings, or (2) ex-ante net reported savings to ex-post net evaluated savings.

reliability: When used in energy efficiency evaluation, the quality of a measurement process that would produce similar results on (a) repeated observations of the same condition or event, or (b) multiple observations of the same condition or event by different observers. Reliability refers to the likelihood that the observations can be replicated.

reported savings: Savings estimates reported by Avista for an annual (calendar) period. These savings will be based on best available information.

Request for Proposal (RFP): Business document that announces and provides details about a project, as well as solicits bids from potential contractors.

retrofit: To modify an existing generating plant, structure, or process. The modifications are done to improve energy efficiency, reduce environmental impacts, or to otherwise improve the facility.

rigor: The level of expected confidence and precision. The higher the level of rigor, the more confident one is that the results of the evaluation are both accurate and precise, i.e., reliable.

R-value or R-factor (resistance transfer factor): Measures how well a barrier, such as insulation, resists the conductive flow of heat.

schedules 90 and 190: Rate schedules that show energy efficiency programs.

schedules 91 and 191: Rate schedules that are used to fund energy efficiency programs.

sector(s): The economy is divided into four sectors for energy planning. These are the residential, commercial (e.g., retail stores, office and institutional buildings), industrial, and agriculture (e.g. dairy farms, irrigation) sectors.

Site-Specific (SS): A commercial/industrial program offering individualized calculations for incentives upon any electric or natural gas efficiency measure not incorporated into a prescriptive program.

simple payback: The time required before savings from a particular investment offset costs, calculated by investment cost divided by value of savings (in dollars). For example, an investment costing $100 and resulting in a savings of $25 each year would be said to have a simple payback of four years. Simple paybacks do not account for future cost escalation, nor other investment opportunities.

spillover: Reductions in energy consumption and/or demand caused by the presence of an energy efficiency program, beyond the program-related gross savings of the participants and without direct financial or technical assistance from the program. There can be participant and/or nonparticipant spillover (sometimes referred to as "free drivers"). Participant spillover is the additional energy savings that occur as a result of the program's influence when a program participant independently installs incremental energy efficiency measures or applies energy-saving practices after having participated in the energy efficiency program. Non-participant spillover refers to energy savings that occur when a program non-participant installs energy efficiency measures or applies energy savings practices as a result of a program's influence.

Technical Reference Manual (TRM): An Avista-prepared resource document that contains Avista's (ex-ante) savings estimates, assumptions, sources for those assumptions, guidelines, and relevant supporting documentation for its natural gas and electricity energy efficiency prescriptive measures. This is populated and vetted by the RTF and third-party evaluators.

Total Resource Cost (TRC): A cost-effectiveness test that assesses the impacts of a portfolio of energy efficiency initiatives regardless of who pays the costs or who receives the benefits. The test compares the present value of costs of efficiency for all members of society (including all costs to participants and program administrators) compared to the present value of all quantifiable benefits, including avoided energy supply and demand costs and non-energy impacts.

transmission: The act or process of long-distance transport of electric energy, generally accomplished by elevating the electric current to high voltages. In the Pacific Northwest, Bonneville operates a majority of the high-voltage, long-distance transmission lines.

Uniform Energy Factor (UEF): A measurement of how efficiently a water heater utilizes its fuel.

Unit Energy Savings (UES): Defines the savings value for an energy efficiency measure.

U-value or U-factor: The measure of a material's ability to conduct heat, numerically equal to 1 divided by the R-value of the material. Used to measure the rate of heat transfer in windows. The lower the U-factor, the better the window insulates.

uncertainty: The range or interval of doubt surrounding a measured or calculated value within which the true value is expected to fall within some degree of confidence.

Utility Cost Test (UCT): One of the four standard practice tests commonly used to evaluate the cost-effectiveness of DSM programs. The UCT evaluates the cost-effectiveness based upon a program's ability to minimize overall utility costs. The primary benefit is the avoided cost of energy in comparison to the incentive and non-incentive utility costs.

Variable Frequency Drive (VFD): A type of motor drive used in electro-mechanical drive systems to control AC motor speed and torque by varying motor input frequency and voltage.

verification: An assessment that the program or project has been implemented per the program design. For example, the objectives of measure installation verification are to confirm (a) the installation rate, (b) that the installation meets reasonable quality standards, and (c) that the measures are operating correctly and have the potential to generate the predicted savings. Verification activities are generally conducted during on-site surveys of a sample of projects. Project site inspections, participant phone and mail surveys, and/or implementer and consumer documentation review are typical activities associated with verification. Verification may include one-time or multiple activities over the estimated life of the measures. It may include review of commissioning or retro-commissioning documentation. Verification can also include review and confirmation of evaluation methods used, samples drawn, and calculations used to estimate program savings. Project verification may be performed by the implementation team, but program verification is a function of the third party evaluator.

vulnerable population: Communities that experience a disproportionate cumulative risk from environmental burdens.

Washington Utilities and Transportation Commission (WUTC): A three-member Commission appointed by the governor and confirmed by the state senate, whose mission is to protect the people of Washington by ensuring that investor-owned utility and transportation services are safe, available, reliable, and fairly priced.

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

Weighted Average Cost of Capital (WACC): A calculation of a firm's cost of capital in which each category of capital is proportionately weighted. All sources of capital, including common stock, preferred stock, bonds, and any other long-term debt, are included in a WACC calculation.

8760: Total number of hours in a year.

APPENDICES AND SUPPLEMENTS

APPENDIX A – 2023 ENERGY EFFICIENCY EVALUATION, MEASUREMENT, AND VERIFICATION ANNUAL PLAN

Background

Avista's 2023 *Energy Efficiency Evaluation, Measurement, and Verification (EM&V) Annual Plan*, in combination with the Avista *EM&V Framework*, is intended to identify the evaluation, measurement, and verification activities planned to be performed in 2023 in order to adequately inform and assess energy efficiency programs provided by Avista for its customers in Washington and Idaho. This evaluation effort is made not only to verify savings estimates of the program, but also to enhance program design and improve the marketing and delivery of future programs. This document also provides the projected 2023 EM&V budget.

Overview

Avista's 2023 *EM&V Annual Plan* identifies evaluation activities intended to be performed on the 2023 energy efficiency portfolio. The scope of this plan is consistent with prior evaluation plans as presented to Avista's Energy Efficiency Advisory Group (EEAG). A comprehensive EM&V overview and definitions are included in Avista's *EM&V Framework*, a companion document to this plan.

A key consideration integrated into this plan is the role of the independent third-party evaluator that will perform the majority of evaluation planning, tasks, analysis, and external reporting as coordinated by Avista energy efficiency staff.

The following details the key aspects of this plan:

- Avista continues to pursue a portfolio approach for impact analysis, ensuring a comprehensive annual review of all programs – to the degree necessary – based on the magnitude both of savings and uncertainty of the related unit energy savings (UES) values, and of claimed energy efficiency acquisition relative to the portfolio.
- Inherent in the impact analysis, a locked UES list identifying a significant number of UES values is available to use through verification rather than fundamental impact analysis; however, this list of UES is reevaluated as part of the company's normal and recurring savings value analysis. Measures will also be updated to reflect the best science from other sources as well, primarily the Regional Technical Forum (RTF).
- Portfolio impact evaluations will be conducted for all electric and natural gas programs in Washington and Idaho. For programs with a majority of savings or particular aspects of interest, such as a high level of uncertainty, detailed impact evaluations using protocols from the Uniform Methods Project, International Performance Measurement and Verification Protocol (IPMVP), and other industry-standard techniques for determining program-level impacts will be used. Billing analyses will be incorporated as appropriate.
- Electric energy efficiency acquisition achieved during 2023 will contribute to the biennial savings acquisition for EIA compliance, which will complete its seventh biennium at the end of 2023.[1]
- A final evaluation of the electric programs deployed during 2023 will be initiated prior to the end of 2023 in order to meet the June 1, 2024, filing deadline in Washington.

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

- The evaluation will provide energy efficiency acquisition results with 90 percent precision with a 10 percent confidence interval. Discrete measures may be represented by reduced precision and wider confidence – such as 80 percent with a 20 percent confidence interval – but must support the required portfolio criteria of 90 percent/10 percent.
- This planning document will not be construed as pre-approval by the Washington or Idaho Commissions.
- Evaluation resources will be identified through the development of the 2023 evaluation work plan in conjunction with the independent, third-party evaluator. Primary segments will include:
    - *Residential* – The impact analysis will consider the portfolio of measures provided to residential customers during the program year. Evaluation effort will be focused on measures that contribute significant portfolio savings and allow consolidation and grouping of similar measures to facilitate the evaluation.
    - *Low-Income and Named Communities* – For the impact analysis, billing analysis on the census of measures, including conversions, will be conducted. In addition, a comparison group, possibly consisting of Low-Income Home Energy Assistance Program (LIHEAP) or Low-Income Rate Assistance Program (LIRAP) participants, may be incorporated into the analysis if possible.
    - *Commercial/Industrial* – Interviews of Avista staff and third-party implementers will be conducted, along with customer surveys, tracking databases, marketing materials, and quality assurance documents.
- A process evaluation report will be delivered as part of the 2023 *Energy Efficiency Annual Conservation Report*, which addresses program considerations for that program year.

External EM&V Budget for Evaluations

For 2022-23, the total budget for external evaluation is estimated to be $1,019,464 on a total system basis. The following table identifies evaluation activities and allocations that are anticipated for 2023. The Washington and Idaho expenses include evaluation activities for both electric and natural gas fuel types.

TABLE 1 – EVALUATION ACTIVITIES AND ALLOCATIONS

Individual Evaluations	Evaluation Type	Contractor	Budget (System)	WA Expense	ID Expense
2022-2023 Electric and Natural Gas Portfolio	Impact	ADM	$ 899,464	$ 629,625	$ 269,839
Electric and Natural Gas DSM Operations (or components of)	Process	ADM	$ 120,000	$ 84,000	$ 36,000
Total Budget for Individual Evaluations			**$ 1,019,464**	**$ 713,625**	**$ 305,839**

Overall 2023 EM&V Budget

The table below captures the individual evaluations specifically identified in the previous table in aggregate, and augments them with the associated expenses related to participate in and fund the activities of the Regional Technical Forum (RTF).

TABLE 2 – AGGREGATE OF INDIVIDUAL EVALUATIONS

Activity	Budget (WA/ID system)	Total budget	WA expense	ID expense
Individual Evaluations Previously Specified	$ 509,732	$ 509,732	$ 356,812.40	$ 152,919.60
Regional Technical Forum Dues	$ 105,000	$ 105,000	$ 73,500	$ 31,500
Total	**$ 614,732**	**$ 614,732**	**$ 430,312**	**$ 184,420**
Expected Total DSM Budget (WA/ID)	$ 53,763,640		$ 39,902,461	$ 13,861,179
EM&V as a % of Total DSM Budget	1%		1%	1%

Summary of Individual Evaluations

Provided below is a summary of each of the external evaluation activities anticipated to occur in 2023. All savings estimates, calculations, assumptions, and recommendations will be the work product of the independent evaluator in conjunction with the respective portfolio impact, process, or market evaluation component. The final evaluation plans will also be included in this plan as an appendix as they become available.

2022-23 Electric and Natural Gas Portfolio Impact Evaluation

Based on the evaluator's work plan, performance data and supporting information may be derived from primary consumption data collected in the field, site audits, phone surveys, billing analysis, and other methods identified to effectively quantify the energy performance of the energy efficiency measure.

Similar to prior evaluations, billing analyses are to be conducted to identify the electric and natural gas impacts of the Low-Income program based on a census of program participants to estimate savings by state, fuel type, and overall program levels. For this evaluation cycle, savings estimates will be evaluated through a combined approach of billing and engineering analysis, as well as developing net savings estimates by measuring the effects of a comparison group.

If possible, a low-income comparison group study may be used to evaluate this specific program activity. There are two feasible approaches for selecting this comparison group. One method would be to identify nonparticipants from data on Avista customers that receive energy assistance payments such as LIHEAP or LIRAP who have not participated in the Low-Income program. A second method would be to consider using future program participants. The best approach will be identified as the timeline and available data are considered.

Additional participant phone surveys may be conducted to provide a better understanding of certain topics, such as primary and secondary heating sources, equipment functionality prior to replacement, customer behaviors and take-back effects, participant non-energy benefits, and other building or equipment characteristics.

For commercial/industrial, site and metering visits on prescriptive and site-specific projects will support project verification and gather necessary data to validate energy savings and engineering calculations. Sample sizes for each type of fuel will be based on the combined two-year (2022-23) anticipated project count. Prior evaluations may inform sampling rates to effectively reduce the sample size in measure categories with less uncertainty, and increase the sampling for those measures with greater variation.

2023 Portfolio Process Evaluation

To identify program changes and areas of interest, brief interviews will be employed to gather relevant information. Key participants in the interview process will include Avista staff and, as appropriate, third-party implementation staff and trade allies.

The independent third-party evaluator will review communication and participant materials for critical program documents that have new or updated materials, including program tracking databases and marketing and trade ally materials. The program materials will be evaluated against industry best practices for their adequacy, clarity, and effectiveness. Where appropriate, feedback will be provided to support the development of new or the enhancement of existing program materials.

Participant and nonparticipant surveys will be conducted in 2023 for both residential and commercial/industrial segments and be used to assess differences in customer experiences, effectiveness of programs, and materials available for customers and trade allies. Participant and nonparticipant surveys will focus on the decisions, attitudes, barriers, and behaviors regarding Avista's programs and efficient equipment/measure installations as well as supplement past spillover research.

Third-Party Vendor Evaluation Plan

As part of contractual requirements, the vendor will provide an overall detailed evaluation plan for 2022-23 that includes details on methodology, approach, and deliverables. Avista has provided this plan in Appendix A.

APPENDIX B – COST-EFFECTIVENESS METHODOLOGY

The cost-effectiveness evaluation of Avista's energy efficiency programs has been standardized to a significant degree in order to provide for greater transparency and understanding of the metrics. Avista has brought these standardized[2] approaches into the evaluation of the cost-effectiveness of its portfolio through a series of specific interpretations, approaches, and policies. The summarization of these key guidelines provides a greater insight into the evaluation and how to interpret the results.

The cost-effectiveness of energy efficiency programs can be viewed from a variety of perspectives, each of which leads to a specific standardized cost-effectiveness test. The below outlines and describes the various perspectives.

1. ***Total Resource Cost:*** The perspective of the entire customer class of a particular utility. This includes not only what they individually and directly pay for efficiency (through the incremental cost associated with higher efficiency options) but also the utility costs that they will indirectly bear through their utility bill. When looking at the full customer population, incentives are considered to be a transfer between ratepayers and not a cost for the overall ratepayer class. This perspective is represented in the total resource cost (TRC) test. Avista has included a 10 percent conservation credit to the TRC calculation adding a benefit to the overall cost effectiveness.
2. ***Utility Cost Test:*** If the objective is to minimize the utility bill – without regard to costs borne by the customer outside of that which is paid through the utility bill – then cost-effectiveness simply comes down to a comparison of reduced utility avoided cost and the full cost (incentive and non-incentive cost) of delivering the utility program. This is the utility cost test (UCT), also known as the program administrator cost test (PAC).
3. ***Participant Cost Test:*** A participating customer's view of cost-effectiveness is focused upon reduced energy cost (at the customer's retail rate). Avista also includes the value of any non-energy benefits that they may receive. Incentives received by the customer offset the incremental cost associated with the efficiency measure. This is the participant cost test (PCT). Since participation within utility programs is voluntary, it could be asserted that well-informed participating customers are performing their own cost-effectiveness test based on their own circumstances and voluntarily participate only to the extent that it is beneficial for them to do so.
4. ***Ratepayer Impact Measure:*** Non-participating customers are affected by a utility program solely through the impact on their retail rate. Their usage, since they are non-participants, is unaffected by the program. The impact of energy efficiency programs on the utility rate imposed upon these non-participating customers is the result of the reduced utility energy costs, diminished utility revenues, and the cost associated with the utility program. Since utility retail energy rates exceed the avoided cost under almost all scenarios (peak end-use load and a few other exceptions apply), the non-participant rarely benefits. This is the rate impact measure (RIM), also known as the non-participant test. The following table summarizes Avista's approach to calculating the four basic cost-effectiveness tests. The categorization and nomenclature have been worded so as to provide clarity regarding each cost and benefit component. Please note that some of the values within the table below represent negative values.

2) California Standard Practice Manual: Economic Analysis of Demand Side Program and Projects

TABLE 2 – SUMMARIZATION OF STANDARD PRACTICE TEST BENEFITS AND COSTS

	TRC	UCT	PCT	RIM
Benefit Components				
Avoided Cost of Utility Energy	$	$		$
Value of Non-Utility Energy Savings	$		$	
Non-Energy Impacts	$		$	
Reduced Retail Cost of Energy			$	
Cost Components				
Customer Incremental Cost	$		$	
Utility Incentive Cost		$	($)	$
Utility Non-Incentive Cost	$	$		$
Imported Funds (tax credits, federal funding, etc)	($)		($)	
Reduced Retail Revenues				$

A summary of some of the approaches by which Avista measures these values and how they are applied within Avista's evaluation of cost-effectiveness is contained below.

Avoided cost of utility energy: The avoided cost of electricity and natural gas is based on the results of the most recent *Integrated Resource Plan* (*IRP*) to include the valuation of several avoided costs that are somewhat unique to energy efficiency (e.g. distribution losses, the monetary cost of carbon, etc.). The cost of electric transmission and distribution (T&D) capacity benefits was adjusted to align with the seventh power plan, and a $26.90 per kW-yr for 20-year levelized cost was used to bring electricity into the Avista balancing area from the mid-C market.

The electric *IRP* provides 20 years of mid-C prices for every hour of the year (8,760 hours) and system capacity benefits for generation and T&D. Different measures have different distribution of their savings of the year, so to properly value the commodity portion for individual measures the 175,200 market prices (8,760 x 20) are multiplied by the individual load shapes yielding 23 different end-use commodity-avoided costs.

To calculate the capacity value, an average of the percentage of savings on January weekdays between 7:00–12:00 and 18:00–23:00 was used to estimate the peak coincidence to be multiplied by that year's generation, transmission, and distribution capacity benefits.

The commodity and capacity benefits are summed for each year and the combined avoided costs are increased to account for avoided line loss rates.

The avoided cost of the natural gas *IRP* produces an annual and winter avoided therm value which an avoided delivery charge is added (represented by the demand portion of Schedule 150) to each.

The application of the avoided cost of energy-to-energy efficiency measures includes all interactive impacts upon the fuel specific to the measure (e.g. interactive impacts upon electric consumption by electric programs) as well as cross-fuel (e.g. interactive impacts upon natural gas usage as a result of an electric program).

Value of non-utility energy: For forms of energy not provided by the utility – such as propane or wood fuel – and for which there is no *IRP* valuation of the avoided cost, all savings are valued based on the customer's retail cost of energy.

Non-energy impacts: Impacts of efficiency measures unrelated to energy usage are incorporated into the appropriate standard practice tests to the extent that they can be reasonably quantified and externally represented to a rational but critical audience. Avista sources its NEIs from regional and natural studies, and NEI values are applied with adjustment factors for the company's service territory. NEI values currently range from $0.08-$0.00002/kWh.

When Avista pays the full cost of a measure within the low-income portfolio, and includes that full cost as a customer incremental cost, the value of the baseline measure is included as a non-energy benefit as a representation of the end-use service beyond the energy efficiency impact. Those impacts that have been determined to be unquantifiable within reasonable standards of rigor consist of both benefits and costs. For example, Avista has not been able to quantify the value of comfort, preventing the company from valuing the benefit of draft reduction from efficient windows, or the increased productivity due to lighting upgrades.

Reduced retail cost of energy: For the participant test, it is the participating customer's reduced retail cost of energy, and not the utility avoided cost of energy, that is relevant to that perspective.

Customer incremental cost: This represents the additional cost of an efficient measure or behavior above the baseline alternative. To the maximum extent possible the determination of customer incremental cost is based on alternatives that are identical in all aspects other than efficiency. When a clear comparison isn't feasible, an individualized adjustment is made to the extent possible.

Utility incentive cost: Direct financial incentives, or the utility cost of physical products or services distributed to individual customers, are transfer payments between participating and non-participating customers. The provision of program delivery services is not a transfer cost and is not incorporated into the definition of the utility incentive cost.

Utility non-incentive cost: These costs consist of all utility costs that are outside of the previously defined incentive costs. It typically consists of costs associated with the administration of the program such as labor, EM&V, training, outreach, marketing, pilot programs, conservation potential assessments, organizational memberships, and so on.

Imported funds: Avista includes the value of imported funds (generally tax credits or governmental co-funding of programs) to be a reduction in the customer incremental cost of the measure for purposes of calculating the TRC test and the participant test. These funds are acquired from entities outside the ratepayer population or the individual participant.

The alternative approach to treating imported funds as an offset to the customer incremental cost is to consider these funds to be a benefit. For the purposes of Avista's cost-effectiveness objective (maximize residual net TRC benefit), there would be no mathematical difference between these two approaches.

Reduced retail revenues: For the purposes of the RIM test, the loss of retail revenue is a cost to the non-participating customer.

The means by which Avista's energy efficiency portfolio is defined for the purposes of evaluation and cost allocation is also an important part of the company's methodology. The various definitions used for the different levels of aggregation are explained below, followed by an explanation of how these are applied in the allocation of costs.

Sub-Measure: A sub-measure is a component of a measure that cannot be coherently offered without aggregating it with other sub-measures. For example, an efficient three-pan fryer couldn't be offered as part of a sensible customer-facing program if the program did not also include two-pan and four-pan fryers. Avista may offer sub-measures that fail cost-effectiveness criteria if the overall measure is cost-effective. This is the only area where Avista permits the bundling of technologies for the purposes of testing offerings against the cost-effectiveness screen. There are relatively few sub-measures meeting the criteria specified above within the portfolio.

Measure: Measures are standalone energy efficiency options. Consequently, measures are generally expected to pass cost-effectiveness requirements barring justifiable exceptions. Exceptions include, but are not necessarily limited to, measures with market transformation value not incorporated into the assessment of the individual measure, significant non-energy benefits that cannot be quantified with reasonable rigor, and cooperative participation in larger regional programs.

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

Portfolio: Portfolios are composed of aggregations of programs. The aggregating factor will vary based on the definition of the portfolio. The following portfolios are frequently defined in the course of Avista's energy efficiency reporting and management:

- *Customer segment portfolio* – An aggregation of programs within a customer segment (e.g. low-income, residential, commercial/industrial).
- *Fuel portfolio* – Aggregating electric or natural gas energy efficiency programs.
- *Regular vs. low-income portfolios* – Separating income-qualified measures delivered through CAP agencies from the remainder of the portfolio.
- *Jurisdictional portfolio* – Aggregating programs within either the Washington or Idaho jurisdiction.
- *Local or regional portfolio* – Aggregating all elements of the local energy efficiency portfolio vs. the regional market transformation portfolio.
- *Fuel/Jurisdictional portfolio* – Aggregating all programs within a given fuel and jurisdiction (Washington electric, Washington natural gas, Idaho electric, or the currently suspended Idaho natural gas portfolio).

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

Methodology for Allocation of Energy Efficiency Costs

The Avista methodology for cost allocation builds from the measure or sub-measure analysis to the program and ultimately portfolio analysis. At each level of aggregation, those costs that are incremental at that stage are incorporated into the cost-effectiveness analysis. Incremental customer cost and benefits are fully incorporated into measure-level analysis. Utility costs (both labor and non-labor) are currently fully incorporated within the program level of aggregation based on previous advisory group discussions regarding the company's ability to expand or contract the portfolio to meet acquisition target. Cost allocations are made based on the expected adjusted Btu acquisition of the program, with adjustments by the relative avoided cost of electricity and natural gas (e.g. a kWh is a highly processed Btu compared with an equivalent natural gas).

Generally little of the non-incentive utility cost (labor and non-labor) is allocated at the measure level, with the exception of programs delivered through a third-party contractor where those costs are truly incremental. Other non-incentive utility costs are allocated at the program level in the belief that the addition or elimination of programs would lead to a change in the scale of the overall portfolio, and that, therefore, these costs are incremental at the program level.

It should be noted that costs not associated with the delivery of local energy efficiency programs within the planned year are excluded from the cost-effectiveness calculations. These are termed "supplemental costs," and consist of:

- The funding associated with regional programs (NEEA)
- Cost to perform conservation potential assessment studies (CPA)
- Evaluation, Measurement, and Verification engagements (EM&V)
- Funding of low-income educational outreach programs in Idaho
- Idaho research funding and similar expenses unrelated to the planned local portfolio

Unit Energy Savings

The quantification of energy savings applicable toward achieving Washington EIA acquisition targets has been an ongoing topic of discussion since the effective date of the requirement. The company plan will create an annual locked Unit Energy Savings (UES) associated with the Technical Reference Manual (TRM) that will be updated on an annual basis. The savings will primarily be derived from the Regional Technical Forum (RTF) or previous impact evaluations.

For planning purposes, the business plan has applied the same assumptions regarding UES to the Idaho portfolio as the best current estimate of savings. However, the retrospective Annual Conservation Report may displace these assumptions with the results of actual impact evaluations when available and appropriate.

Analytical Methodology Applicable to the Low-Income Programs

Avista has developed several analytical methodologies specific to the evaluation needs of the low-income portfolio. These include the (1) accommodation of incentive levels equal to the entire cost of the measure, including the cost of the baseline measure, and (2) the treatment and quantification of the considerable non-energy benefits incorporated within the low-income portfolio. Beyond these two rather significant analytical issues, the treatment of the low-income portfolio is similar to that applied to the other portfolios.

Except for the low-income program, Avista does not typically fully fund the customer incremental cost, and even less frequently the full installed cost of an end-use service. For low-income programs delivered with Avista funding in partnership with Community Action Program (CAP) agencies, the participating customer may receive full funding of the end-use service. There is a need to appropriately represent this expenditure within the overall energy efficiency expenditure budget, but at the same time it is necessary to recognize that only a portion of this expenditure is dedicated toward energy efficiency. The company does so by recognizing the full expenditure as a cost, but also recognizing that there is a non-energy benefit associated with the provision of base-case end-use services. The full cost less this non-energy benefit is equal to the amount invested in energy efficiency. Thus the assessment of the cost-effectiveness of the energy efficiency investment is appropriately based upon the value of the energy savings of the efficient measure in comparison to this incremental cost. In situations where a measure might be found cost-effective under one fuel, it will be reimbursed at the full cost for both fuels.

Avista has also defined the expenditure of non-energy health and safety funds as a non-energy benefit (on a dollar-for-dollar basis). This quantification is based on the individual assessment of each of these expenditures by the CAP agency prior to the improvements being made. This approval process provides reasonable evidence that the improvements are worth, at a minimum, the amount that has been expended upon them through CAP agency funds.

As a consequence of these two assumptions, the low-income portfolio accrues considerable non-energy benefits.

The administrative reimbursement permitted to the CAP agency is considered to be a component of the measure cost. This amount reimburses the CAP for back-office costs that would, in a typical trade ally bid, be incorporated into the project invoice. For 2023, the admin reimbursement is 30 percent for Washington and 15 percent for Idaho.

APPENDIX C – WASHINGTON DSM TARIFF SCHEDULES

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Canceling
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AVISTA CORPORATION
dba Avista Utilities

SCHEDULE 90
ELECTRIC ENERGY EFFICIENCY PROGRAMS
WASHINGTON

1. AVAILABILITY

The services described herein are available to specified residential, commercial, and industrial, retail electric distribution customers of Avista for the purpose of promoting the efficient use of electricity. Customers receiving electric distribution service provided under special contract and/or customers receiving electric services not specified under Tariff Schedule 91 (Energy Efficiency Rider Adjustment) are not eligible for services contained in this schedule unless specifically stated in such contract or other service agreement. The Company may provide partial funding for the installation of electric efficiency measures and may provide other services to customers for the purpose of identification and implementation of cost-effective electric efficiency or demand response measures as described in this schedule. These services are available to owners of facilities, and also may be provided to tenants who have obtained appropriate owner consent. (N)

Assistance provided under this schedule is limited to end uses where electricity is the primary energy source. Assistance may take the form of monetary incentives or non-monetary support, as further defined within this tariff. The Company shall strive to develop a portfolio of programs that is cost-effective on an aggregate basis. Customer participation under this schedule shall be based on eligibility requirements contained herein.

2. ELIGIBLE CUSTOMER SEGMENTS

All customers in all customer segments to whom this tariff is available are eligible for participation in electric efficiency programs developed in compliance with this tariff. The broad availability of this tariff does not preclude the Company from targeting measures, markets and customer segments as part of an overall effort to increase the cost-effectiveness and access to the benefits of electric efficiency.

3. MEASURES

Electric efficiency measures with verifiable energy savings and demand response measures intended to achieve capacity reductions are eligible for assistance. Measure eligibility may not necessarily apply to all customer segments. Final determination of applicable measures will be made by the Company. Eligible technologies may include, but are not limited to, energy-efficient appliances, assistive technologies, controls, distributed renewable energy, motors, heating, ventilation and air-conditioning (HVAC) systems, lighting, maintenance, monitoring, new technologies, and shell. (T) (D) (D)

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SCHEDULE 90 (continued)

Market transformation ventures will be considered eligible for funding to the extent that they improve the adoption of electric efficiency measures that are not fully accepted in the marketplace. These market transformation efforts may include efforts funded through regional alliances or other similar opportunities.

4. FUNDING AND NONMONETARY ASSISTANCE

4.1 Funding

The Company shall offer incentives for projects based upon the incremental capital cost associated with the energy efficiency of the project. Energy savings are calculated using the current retail energy rates.

The Company shall pay an incentive up to a maximum of the measure's installed cost. (N)
The Company shall make adjustments to the percent of cost paid to attempt to obtain the (N)
greatest energy savings while maintaining a TRC cost-effectiveness of 1.0 or higher at the (T)
portfolio level.

Low-income measures that have a TRC of 1.0 or higher are incentivized at 100% of the project cost. For measures that have a TRC of less than 1.0, the project is incentivized (T)
at an amount equal to the present value of avoided cost.

Incentives for efficiency measures within the following categories shall not exceed 100% of the project cost:

4.1.1 Energy efficiency programs delivered by community action agencies contracted by the Company to serve low-income or vulnerable customer segments, including agency administrative fees and health and human safety measures.

4.1.2 Low-cost electric efficiency measures with demonstrable energy savings. (T)

4.1.3 Programs or services supporting or enhancing local, regional or national electric efficiency market transformation efforts.

4.1.4 Prescriptive programs are guided by the typical application of that measure in accordance with the previously defined incentive structure. Incentive levels for these programs are based on market conditions at the time of program design and are not dependent on actual project cost relative to incentive caps. Incentives shall not exceed project costs.

4.1.5 Incentives for demand response programs shall be allowed with a (N)
calculated value based on event, schedule or other applicable factors and (N)
may not exceed the Federal Energy Regulatory Commission day-ahead (N)
market energy price cap.

4.1.6 On-Bill Repayment (OBR) Program interest rate buydowns for qualifying electric energy efficiency measure financing as provided through the Company's partner lender. (T)

AVISTA CORPORATION
dba Avista Utilities

SCHEDULE 90 (continued)

(K) (N)

4.1.7 Incentives for customers designated as part of a vulnerable population or highly impacted community pursuant to RCW 19.405.020. Funding is limited to 100% of the project costs for installation and use of energy efficiency equipment. Equipment or repairs related to the health and safety of the customer or community is also allowed under this section. (N)

The Company will actively pursue electric efficiency opportunities that may not fit within the prescribed services and described in this tariff. In these circumstances the customer and the Company will enter into a site-specific services agreement.

4.2 Non-Monetary Assistance

Assistance without the granting of direct monetary incentives to the customer is available across all applicable segments and may be provided in various ways, that include, but are not limited to, the following:

4.2.1. Educational, training, or informational activities that enhance electric efficiency. This may include technology or customer-segment specific seminars, literature, tradeshow or community events, advertising, or other approaches to increasing the awareness and adoption of resource efficient measures and behaviors. (K)

4.2.2. Financial activities intended to reduce or eliminate the financial barriers to the adoption of electric efficiency measures. This may include programs intended to reduce the payment rate for resource efficiency measures, direct provision of leased or loaned funds or other approaches to financial issues with better than existing market terms and conditions.

(K) material transferred to Ninth Revision Sheet 90A

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SCHEDULE 90 continued

4.2.3. Product samples may be provided directly to the customer when energy efficiency products may be available to the utility at significantly reduced cost as a result of cooperative buying or similar opportunities.

4.2.4. Technical Assistance may consist of engineering, training, workforce development, financial, grant writing or other analysis or services provided to the customer by, or under the direction of, Company staff. This may take the form of design reviews, product demonstrations, third-party bid evaluations, facility audits, measurement and evaluation analysis, staff augmentation or other forms of technical assistance that addresses the cost- effectiveness, improvement of energy efficiency services technical applicability or end-use characteristics of customer alternatives. (N) (N) (N) (N)

5. BUDGET & REPORTING

The electric efficiency programs defined within this tariff will be funded by surcharges levied within Schedule 91. The Company will manage these programs to obtain resources that are cost-effective from a Total Resource Cost (TRC) perspective and achievable through utility intervention. Schedule 91 will be reviewed annually and revised as necessary to provide adequate funding for electric efficiency efforts.

6. GENERAL RULES AND PROVISIONS

Service under this schedule is subject to the General Rules and Provisions contained in this tariff and is limited to facilities receiving electric service from the Company.
All installations and equipment must comply with all local code and permit requirements applicable and be properly inspected, if required, by appropriate agencies.

The Company may establish specifications regarding any electric efficiency measures and modifications to be affected under this schedule and may conduct inspections to ensure that such specifications are met.

APPENDIX D – ELECTRIC PROGRAM SUMMARY

Program	MWh Savings	Estimated Budget
Low-Income Programs Total		
Low-Income Programs	1,203,682	$ 2,994,397
Named Communities	450,000	$ 2,329,825
Low-Income Programs Total	**1,653,682**	**$ 5,324,222**
Residential Programs		
Prescriptive	4,324,204	$ 2,033,095
Multifamily Direct Install	862,752	$ 686,472
Multifamily Weatherization	1,115,961	$ 473,951
Midstream	629,132	$ 374,657
Always-On	1,890,000	$ 1,773,059
Residential Programs Total	**8,822,049**	**$ 5,341,234**
Commercial/Industrial Programs		
Interior Prescriptive Lighting	10,341,966	$ 3,188,032
Exterior Prescriptive Lighting	6,424,212	$ 2,023,499
Direct Install Lighting	2,475,000	$ 1,533,477
Site-Specific	25,000,000	$ 8,422,533
Prescriptive Shell	321,000	$ 198,564
Midstream	159,448	$ 163,491
Green Motors	51,193	$ 10,039
Variable Frequency Drives	773,800	$ 170,801
Compressed Air	42,000	$ 11,919
Grocer	304,199	$ 24,914
Food Services	177,777	$ 43,998
Appliance and HVAC Controls	94,446	$ 37,966
Active Energy Management	1,120,000	$ 450,000
Commercial/Industrial Programs Total	**47,285,042**	**$ 16,279,232**
Other Program and Administrative		
CPA & EM&V	-	$ 278,645
NEEA	5,752,000	$ 1,358,000
Conservation Voltage Reduction	7,365,000	TBD
Pilot Programs	-	$ 1,000,000
Total Other Program and Administrative	**13,117,000**	**$ 2,636,645**
Total Electric Budget	**70,877,773**	**$ 29,581,334**