



Idaho Energy Efficiency Incentive Methodology

Avista Energy Efficiency Programs

Contents

Purpose and Scope.....	2
Background	2
Objective Standard to Incentive Level Setting.....	3
Cost-Effectiveness.....	3
Items that Influence Downward Incentive Revisions	3
Sources Used to Determine Savings Values.....	4
Process for Evaluating Existing Rebate Levels	5
Addressing Programs with Cost-Effectiveness below 1.0.....	6
Calculation of Incentives for New Measures	6
Low Income Programs	7
Questions	7

Purpose and Scope

The purpose of this document is to describe Avista's existing methodology for the modification and setting of rebates (aka incentives) for its Idaho Energy Efficiency Programs. Currently, Avista adjusts incentive levels on an as-needed basis. However, with changes to regional Unit Energy Savings (UES) values, impact evaluation feedback and changing/emerging technology, the result is that some measures are subject to necessary incentive revisions in order to remain cost-effective. The following methodology is designed to functionalize those inputs into an informed approach to modifying incentive levels.

Background

As part of Avista's 2018-2019 application for a prudency determination (Case Nos. AVU-E-20-13/AVU-G-20-08), Commission Staff noted concerns about constant incentive level changes having a negative impact on customer participation, and that incentive level setting for Idaho should be independent from those efforts in Washington. The below comments were provided by Commission Staff in Final Order No. 35129:

Staff discussed the inconsistency of the Company's energy efficiency rebate and incentive values. Staff noted several occasions where the rebate or incentive amount changed during the year. Staff learned that the Company tries to match rebates for its programs in Idaho and Washington. However, with Washington being evaluated from the TRC perspective and Idaho by the UCT perspective, Staff notes this can be difficult and causes varying rebate amounts between jurisdictions. Staff believed the Company should evaluate its rebates and incentives from the UCT perspective for its Idaho customers before making changes to the rebate and incentive values. Staff believed the Company should consult with its Energy Efficiency stakeholders to formalize a process for evaluating and altering rebate and incentive levels and to document and formalize a process for setting and adjusting rebates and incentives.

In response to these comments, the Idaho Commission provided the following statement, supporting Staff's position:

The Commission is concerned with the Company's tendency to change some rebate and incentive values frequently. This creates uncertainty for customers who may be interested in the programs, but hesitant to participate due to fluctuations in the rebate and incentive values. An objective standard for changing rebate and incentive levels may encourage participation. We direct the Company, Staff, and interested parties to work together to develop a process to evaluate and change rebate and incentive values. The parties working to address this issue should rely on objective criteria as a baseline for changing the rebate and incentive values and should continue to focus on being cost-effective from a UCT perspective.

Objective Standard to Incentive Level Setting

Avista's approach to incentivizing Energy Efficiency measures is to provide the highest level of benefit to the customer at the lowest resource cost while also remaining cost-effective on an overall portfolio basis. Given that all measures offered within the Demand Side Management (DSM) portfolio have a unique set of UES values, the incentive level for each measure observes the following standards:

1. Maintain a cost-effective energy efficiency portfolio
2. Drive conservation achievements to support Avista's preferred resource strategy of pursuing the lowest cost resources
3. Provide incentives that are meaningful to customers, influencing their decision to pursue energy efficient equipment
4. Structure incentives to avoid unnecessary revisions to promote customer certainty in energy efficiency programs
5. Provide incentives to drive market transformation and/or adoption of emerging technology.

Cost-Effectiveness

As its primary cost test, Avista utilizes the Utility Cost Test (UCT) to set incentive levels for individual measures and to gauge the overall cost-effectiveness (CE) of the DSM program portfolio.

Utility Cost Test (UCT)

The UCT cost-effectiveness analysis approach addresses energy efficiency cost-effectiveness by simply determining which approach has the highest associated net benefit.¹ As the name suggests, the UCT focuses on the overall impact to the utility when pursuing DSM by measuring:

- 1) Benefit: the costs to the company's system that are assumed to be avoided over the life of the measure. These costs included the avoided energy and capacity costs of Avista's system.
- 2) Cost: the costs are incurred by the company in administering the program which include incentives paid to customers and the program administration costs for the program's entirety.

UCT cost-effectiveness simply comes down to a comparison of reduced utility costs (avoided costs) and the full cost (incentive and non-incentive cost) of delivering the utility program. When the resulting ratio is 1.0 or above, cost-effectiveness is achieved. the below formula provides a simplified calculation of the UCT as it applies to DSM programs.

$$\frac{\text{Levelized Avoided Cost of Utility Energy}}{\text{Incentive Cost} + \text{Program Admin Costs}} = \text{Utility Costs}$$

Items that Influence Downward Incentive Revisions

While the goal of this process is to maintain a consistent level for incentive revisions, there are key factors that are considered in incentive modifications.

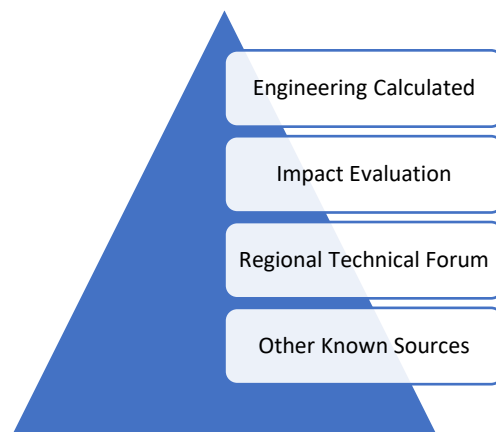
¹ Net benefit is calculated as the avoided cost less the program's cost.

- **Failing the UCT Cost-Effectiveness Test:** When a measure or program achieves a UCT benefit-to-cost ratio lower than 1.0, it is not considered to be cost-effective. This alone does not mean an incentive revision is required; however, it does have a negative impact on individual programs and the overall portfolio.
- **Changes to Avoided Cost:** When the overall system avoided cost is modified as part of Avista's Integrated Resource Plan (IRP) process, the cost avoided per kWh or therm of conservation is impacted. A decrease in the avoided cost value, which is the numerator in the UCT calculation, causes more pressure to be placed on the program cost (i.e. the denominator) to maintain cost-effectiveness.
- **Unit Energy Savings Values:** As with a change to the avoided cost, a reduction in the kWh and/or therms achieved per measure or a reduction in the useful life of the measure will result in less conservation achieved over the unit life.
- **Market impacts/saturation:** The anticipated degree to which a higher or lower incentive level causes the market to react, resulting in higher or lower program participation.
- **Codes and Standards:** As energy codes are adopted, the required efficiency levels may have a determining factor on the ability to offer an incentive, since the baseline efficiency option moves closer to the highest efficiency option for any given measure. Increases in baseline efficiencies result in less kWh and/or therm savings per measure installed.

Conversely, at times these impacts work in the opposite manner and provide more opportunity for increasing incentive levels. For example, an increase to the overall avoided cost per kWh or therm would result in a higher UCT ratio. Likewise, an adjustment to the savings value that results in more savings per measure would also provide the opportunity for a higher incentive. When these adjustments occur, Avista determines if an incentive revision is appropriate.

Sources Used to Determine Savings Values

Avista uses several resources for determining the claimed savings values for programs, projects, and individual measures. The table below illustrates the hierarchy used by Avista to determine the prevalent value to use when multiple savings sources are available.



Engineering Calculated: Avista utilizes customer-specific energy use and savings for calculating incentives for site specific projects. The information used to perform calculations comes directly from the customer and/or their contractor/vendor. Data collected may include prevalent information from

existing equipment specs, nameplate data, hours of operation, setpoints, building automation trend logs when available, etc. Engineering Calculated projects will continue to develop UES specific to the customers site location and improvements.

Impact Evaluation: As part of our annual Evaluation, Measurement and Verification (EM&V) process, Avista’s contracted, independent third-party evaluator may adjust UES values that Avista used in its program year. Any adjustments come in a form of “recommendations” from the EM&V vendor. Based on a given recommendation, Avista may update the UES value in the following program year. This adjustment would be applicable to the Company’s Residential and Commercial prescriptive (rebate) programs.

Regional Technical Forum: Avista uses values from the Regional Technical Forum (RTF) to inform incentive values for prescriptive measures throughout its portfolio. These values are informed by consistent and reliable program achievements of efficient technologies or actions throughout the Northwest and are frequently updated based on observed changes in measure performance, technology adoption, and codes and standards.

Other Known Sources: When no other sources of savings values are available, Avista may utilize UES values or the energy savings calculation methodology from alternative sources such as other utility TRM workbooks and values or preliminary results from similar programs. This approach relies on the EM&V process to evaluate or “prove” that the UES values are appropriate for Avista’s service territory and are expected to be adjusted upon program evaluation.

Process for Evaluating Existing Rebate Levels

Before the start of each program year, Avista reviews its incentive levels to determine if an adjustment is required. This approach takes into consideration inputs from internal and external sources, including those mentioned in the prior section above.

Step 1: Update Avoided Cost and UES Values

Based on the most recent IRP, Avista will update the avoided cost. This impacts the overall “strength” of 1 kWh or 1 therm of conservation.

Based on the source of the UES value, Avista will review and update the UES values. This results in a change to the 1st year kWh or therm savings value. This determines the overall conservation achieved per measure.

Step 2: Update Forecasted Admin Costs

The portfolio is update with new projections for labor, implementation, and third-party costs.

Step 3: Test for Changes to Cost-Effectiveness

Based on the updated UES values and avoided costs, Avista estimates the cost-effectiveness per measure, per program and for the overall portfolio. For measures that have a UCT lower than 1.0, Avista further investigates the issue. Options to address a failing UCT may include adjustments to the UCT formula costs components:

1. Reviewing the alignment of allocated administrative costs for appropriateness
2. Lowering Incentive levels

3. Take no action and monitor program cost-effectiveness on an annual basis

The course of action for any given measure depends, in part, on the extent to which a falling UCT will impact the UCT of the overall program portfolio. In the event that Avista learns of a UCT that is dropping more rapidly or further than expected for a measure or set of measures with significant influence on overall cost-effectiveness of the portfolio, Avista will take swift action to correct the issue by lowering incentive levels, not necessarily waiting for the next annual rebate evaluation cycle.

Step 4: Other Indicators

Program Performance

Avista reviews the customer participation of each measure to determine if an increased incentive would result in a higher throughput. Avista reviews the historic throughput and incentive levels to determine if the resulting data informs a relationship between incentive changes and customer participation.

Market Conditions

Avista reviews market conditions and any cost barrier indicators to determine if the current rebate amounts are sufficiently incenting customers to participate in energy efficiency programs. Market conditions may include the total cost of equipment installation, technology saturation and maturity, and when possible, aligning incentive levels with neighboring utilities.

Comparison to Other Utilities

On an annual basis, Avista will also compare its residential offerings to those of other utility companies within the region to identify programs that may be under or over incenting. While this step may not result in incentive level changes, it provides additional perspective to our program's composition and identifies areas where adjustments could be made.

Addressing Programs with Cost-Effectiveness below 1.0

When a program's cost-effectiveness is or falls below 1.0, Avista will monitor the program and work with its Idaho Energy Efficiency advisors to determine if a rebate adjustment is needed or if the program should instead be concluded. Avista will assess the impact the program has on the portfolio level cost-effectiveness and the conservation achieved by the program to determine next steps.

Calculation of Incentives for New Measures

In general, Avista bases its incentive/rebate calculation on a cents per kilowatt hour and dollars per therm basis. Energy savings are then used to determine the incentive Avista will provide to ensure the probability that the measure will have a UCT of 1.0 or higher and that the incentive value does not exceed 100% of the incremental cost between the baseline option and the efficient option being installed.

For the purposes of developing a new measure, Avista typically begins with an incentive that is based off 70% of the incremental cost and \$0.23/kWh or \$3.50/Therm. Setting the incentive back from the upper limits provides some protections to ensure that the measure will be cost-effective in the future if an impact evaluation finds that the savings value was overstated.

Low Income Programs

Avista designs its low-income energy efficiency program with the intent to provide customers with solutions to address their energy burden by helping make the energy used in their homes more affordable. Avista maintains a list of deemed measures that the CAP agency can fully fund with an annual budget of \$875,000. Measures may include insulation, HVAC, Lighting along with Health and Safety related projects. By fully funding several measures that are traditionally supported by the Department of Energy weatherization program along with others that are beneficial to Avista's service territory, the costs associated with each project is higher and has historically resulted in UCT less than 1.0. Avista continues to monitor the low income program and will seek out adjustments to improve the cost effectiveness of the program when possible.

Questions

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