Idaho
2025

Annual Conservation Report

August 31, 2026

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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

For almost five decades, Avista's energy efficiency programs have supported Idaho customers in finding practical, innovative ways to reduce energy use, improve comfort, operate businesses more efficiently, and lower energy costs. This 2025 *Annual Conservation Report (ACR)* summarizes Avista's efforts to support the energy needs of residential and commercial customers across the service territory.

Figure 1 - Electric and Natural Gas Service Areas

In 2025, Avista's Idaho energy efficiency portfolio delivered strong overall savings results, led by significant electric portfolio performance and continued savings contributions from natural gas programs. Including regional market transformation savings from the Northwest Energy Efficiency Alliance (NEEA), total electric savings reached 42,289 MWh, while total natural gas savings reached 505,591 therms. Electric programs achieved 35,456 MWh, or 200 percent of planned savings, driven primarily by Commercial/ Industrial programs, especially Small Business Direct Install Lighting and Site-Specific offerings. Natural gas programs achieved 203,384 therms, or 107 percent of planned savings, with Residential Midstream accounting for the majority of verified gas savings.

Program expenditures exceeded planned budgets for both fuel types, reflecting higher-than-expected participation, the cost of delivering verified savings, and broader market conditions affecting customer projects. Electric expenditures totaled approximately $20.7 million compared with a planned budget of $10.6 million, consistent with the portfolio's substantially higher savings achievement. Natural gas expenditures totaled approximately $2.7 million compared with a planned budget of $1.8 million, despite Avista's efforts to manage costs through reduced marketing, targeted program delivery, and careful screening of participation amid continued cost-effectiveness pressures.

Cost-effectiveness results were mixed. The electric portfolio remained cost-effective, achieving a Utility Cost Test (UCT) result of 1.40, supported by strong verified savings

from high-volume and cost-effective measures. Conversely, the natural gas portfolio achieved a UCT of 0.84. Factors affecting natural gas cost-effectiveness included lower-than-expected verified savings in certain Residential programs, limited participation in the Site-Specific program, elevated delivery costs relative to avoided gas benefits, and changes in verification methodologies and documentation requirements.

Impact evaluations reported a 100 percent realization rate for the electric portfolio and a 95 percent realization rate for the natural gas portfolio. From a funding perspective, tariff rider balances ended the year with a significant electric underfunded balance of approximately $24.6 million and a natural gas overfunded balance of approximately $2.5 million, resulting in an aggregate underfunded balance of approximately $22.1 million.

Energy efficiency remains one of the company's least-cost resources, and 2025 represented a particularly strong year for conservation, with programs achieving electric savings well above targets. These results were built on portfolio changes implemented in 2024 that were designed to increase program participation, with additional programmatic changes made during 2025 as described within this *ACR*. The table below provides a summary of Avista's energy efficiency program results for 2025.

Table 1 - Energy Efficiency Savings and Cost-Effectiveness Results

	Savings	Costs	Total Resource Cost	Utility Cost Test
Electric				
Electric Actuals (kWh)	35,456,276	$20,688,852	1.12	1.40
Percent of Goal	200%	195%		
Annual Planned Goal/Budget	17,696,834	$10,594,013		
Natural Gas				
Natural Gas Actuals (Therms)	203,384	$2,742,431	0.64	0.84
Percent of Goal	107%	150%		
Annual Planned Goal/Budget	189,434	$1,828,377		

Throughout the portfolio, programs continued to prioritize affordability and flexibility while emphasizing customer-centered energy solutions. In addition to its portfolio of company and third party implemented programs, Avista once again supported regional market transformation efforts through NEEA. Reported energy conservation savings, cost-effectiveness, and other related data, however, are specific to local programs unless otherwise noted.

Idaho Achievements

For 2025, savings from NEEA's programs added an additional 6,833 MWh to the company's electric savings achievements, bringing overall savings achieved from 35,456 MWh to 42,289 MWh. For natural gas, after including 302,207 therms from NEEA's programs, the overall savings achieved in 2025 was 505,591 therms. The tables below provide a breakdown of Avista's 2025 savings achievements by program.

Table 2 - Idaho Electric Achievements

	Savings Achieved (MWh)
Commercial/Industrial	32,679
Residential	2,635
Low-Income	142
Total Local Program	**35,456**
NEEA	6,833
Total	**42,289**

Table 3 - Idaho Natural Gas Achievements

	Savings Achieved (Therms)
Commercial/Industrial	31,143
Residential	168,408
Low Income	3,833
Total Local Program	**203,384**
NEEA	302,207
Total	**505,591**

Portfolio Trends

In 2025, Avista delivered electric energy savings that substantially exceeded expectations. The key savings drivers were concentrated in the Commercial/Industrial portfolio, which accounted for the vast majority of total electric savings. The largest individual contributors were the Small Business Direct Install Lighting and Site-Specific programs. The Small Business Direct Install Lighting program's high participation of 1,924 projects and strong verified savings – 18,962,969 kWh with a 102 percent realization rate – suggest the program effectively reaches customers with common, high-impact lighting opportunities and delivers savings that closely align with expectations. The direct-install model also removes common barriers for small businesses, such as limited staff time, upfront project complexity, and uncertainty about savings, by making participation easy and accessible. The Site-Specific program was successful in delivering substantial verified savings of 9,511,607 kWh. The program's custom approach also allowed evaluators to apply the most appropriate assessment method for each project, helping capture large, project-specific savings opportunities that standard prescriptive programs may not address.

Within the Residential portfolio, the Midstream program was the primary savings driver, contributing more than 84 percent of verified residential portfolio savings. Its success was supported by collaboration between Avista and its evaluators to review and verify methodologies, helping ensure reliable savings estimates and strong program performance. The Midstream program was also bolstered by increased participation in 2025.

Table 4 – Energy Efficiency Savings by Sector, Planned vs Achieved - Electric

	Planned Savings (kWh)	Achieved Savings (kWh)	% of Plan Achieved
Commercial/Industrial	12,890,865	32,678,682	254%
Residential	4,684,420	2,635,482	56%
Low-Income	121,549	142,112	117%
Total	**17,696,834**	**35,456,276**	**200%**

Natural gas programs also delivered substantial therm savings, reaching 107 percent of the company's planned savings goal. Residential programs drove most verified gas savings, with the Midstream program contributing more than 87 percent of verified savings. Significant savings were also achieved through the Residential Shell program and the Commercial/Industrial Midstream program.

Realization rates were generally strong for 2025 but varied significantly by program. Some measures and programs underperformed due to methodology and documentation issues, particularly Appliances, which experienced a 74 percent realization rate, and Commercial/Industrial Shell, which amounted to 27 percent. Diminishing participation in gas programs is evident in the relatively small project counts across several program offerings and the concentration of savings in only a few high-volume programs. The Residential portfolio had 3,008 gas projects, but most activity was concentrated in Midstream, which accounted for 1,891 projects. Commercial/Industrial programs accounted for 83 total projects, of which 79 were Midstream.

Table 5 - Energy-Efficiency Savings by Sector, Planned vs Achieved – Natural Gas

	Planned Savings (Therms)	Achieved Savings (Therms)	% of Plan Achieved
Commercial/Industrial	28,130	31,143	111%
Residential	157,066	168,408	107%
Low-Income	4,239	3,833	90%
Total	**189,434**	**203,384**	**107%**

Expenditures

As part of Avista's annual business planning process, the company sets an expectation to pursue all cost-effective measures possible. Because of this mandate, variances may exist between planned and actual spending each year. In 2025, expenditures for Avista's conservation programs significantly exceeded planned budgets for both fuel types. In the electric portfolio, actual spending was approximately twice the planned amount, consistent with achieving 200 percent of planned kWh savings. In the natural gas portfolio, actual spending reached approximately 150 percent of the planned amount, while savings achieved 107 percent of planned therm savings.

Overall, Avista experienced higher-than-expected expenditures across nearly every category, driven primarily by the level and mix of customer participation, the cost of delivering verified savings, and broader market conditions affecting customer projects. Electric incentives increased from approximately $6.2 million planned to $15.8 million spent, and natural gas incentives, which increased from approximately $1.2 million planned to $1.8 million spent. Higher electric incentive expenditures are primarily attributed to the actual participation and savings achievements substantially exceeding what was planned, particularly in high-volume and high-performing programs such as the Small Business Lighting and Commercial/Industrial Site-Specific programs. Higher natural gas incentive expenditures were the result of the Residential Midstream and Low-Income programs.

The table below provides a detailed comparison of budgeted to actual energy efficiency expenditures by fuel type.

Table 6 - Annual Conservation Plan Budget to Actual Expenditures Comparison

	2025 Planned Expenses	2025 Actual Expenses
2025 Electric Planned vs Actual Expenses		
Incentives	$6,152,749	$15,777,768
Non-Incentives and Labor	$3,213,619	$3,769,799
MT, CPA, EM&V	$1,227,644	$1,141,285
Total Expenditures	**$10,594,013**	**$20,688,852**
2025 Natural Gas Planned vs Actual Expenses		
Incentives	$1,176,065	$1,815,377
Non-Incentives and Labor	$348,735	$446,912
MT, CPA, EM&V	$303,577	$480,143
Total Expenditures	**$1,828,377**	**$2,742,431**

For the natural gas portfolio, Avista took a targeted approach to reducing expenditures where possible in response to continuing cost-effectiveness pressures.[1] The company implemented a variety of cost controls throughout 2025, including reducing marketing and broad outreach activities, narrowing program delivery to a more limited set of offerings, and continuing to screen and manage participation with cost-effectiveness considerations in mind. Despite these efforts, natural gas expenditures exceeded the planned budget because completed projects and customer participation were concentrated in measures and programs that required incentives, technical review, implementation support, and measurement and verification activities to produce verified savings.

Even with the more constrained natural gas portfolio and active efforts to limit discretionary implementation activities, costs supporting natural gas programs continued at an elevated pace as Avista achieved 107 percent of its planned therm savings. Incentive costs increased as eligible customer projects were completed and paid in accordance with program requirements, while non-incentive costs reflected the technical and administrative effort necessary to support program administration, project review, evaluator coordination, and compliance activities. These costs do not always decline in direct proportion to participation levels, particularly when savings are concentrated in in a smaller number of measures or when custom and midstream offerings continue to require substantial administrative oversight.

External market conditions also likely contributed to higher project costs across both sectors. While supply chain disruptions that affected the market from 2020 through 2023 continued to ease, commercial and industrial customers still faced elevated equipment and project costs, labor costs, contractor availability constraints, tariff-related uncertainty, and higher borrowing costs. These factors increased the cost of completed efficiency projects and may have influenced the number, timing, and type of projects completed during the year. Some customers decided to move forward on larger or higher-savings projects that had strong economic or significant savings potential, while others may have delayed or deferred smaller opportunities. Taken together, the 2025 cost increases reflect strong electric portfolio performance, necessary delivery costs for verified savings, and market conditions outside of Avista's direct control.

[1] As described within Avista's Application to temporarily suspend its natural gas demand side management (DSM) programs in Case No. AVU-G-26-01 and noted cost-effectiveness pressures within the natural gas portfolio are attributed to declining avoided cost values, increasing program delivery costs, and the resulting challenge of maintaining portfolio cost-effectiveness while continuing to acquire cost-effective therm savings.

Cost-Effectiveness

Avista evaluates its energy efficiency portfolio throughout implementation and again at the end of each program year to assess cost-effectiveness. These tests help determine whether programs provide value from both the company and customer perspectives. For the electric and natural gas portfolios, Avista's cost-effectiveness target is a UCT result greater than 1.00, indicating that utility benefits exceed the costs of program delivery.

Table 7 - Portfolio Cost-Effectiveness Results – Electric

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Utility Cost Test (UCT)	$26,734,655	$19,039,212	1.40
Total Resource Cost (TRC)	$26,734,655	$23,820,458	1.12
Participant Cost Test (PCT)	$42,092,287	$20,138,877	2.09
Ratepayer Impact (RIM)	$26,734,655	$21,535,882	1.24

The electric portfolio's UCT of 1.40 was primarily attributed to strong verified savings from high-volume programs, particularly Lighting and Midstream, where realization rates were close to or slightly above 100 percent. While some smaller programs produced lower realization rates, their impact was outweighed by the larger savings contributions from cost-effective measures across the portfolio.

Table 8 - Portfolio Cost-Effectiveness Results – Natural Gas

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Utility Cost Test (UCT)	$1,892,976	$2,254,067	0.84
Total Resource Cost (TRC)	$1,892,976	$2,937,888	0.64
Participant Cost Test (PCT)	$3,700,568	$2,491,413	1.49
Ratepayer Impact (RIM)	$1,892,976	$2,372,664	0.80

As further described in Avista's request to suspend its natural gas demand side management (DSM) programs (the "Suspension Application") in Case No. AVU-G-26-01,[2] the company developed a portfolio for the 2025 program year that was cost-effective under then-current planning assumptions, although only marginally so. In the end, however, lower-than-expected verified gas savings in several Residential programs and program costs that were high relative to avoided natural gas benefits ultimately limited the company's ability to maintain portfolio cost effectiveness. As a result, the 2025 natural gas portfolio achieved a UCT of 0.84.

One example of lower-than-expected verified savings involved natural gas furnaces. While Avista had hoped to better stabilize the tight cost-effectiveness margins of its 2025

[2] *Application to Suspend Natural Gas Demand-Side Management Programs, Case No. AVU-G-26-01*, Idaho Public Utilities Commission, available at IPUC Filing.

portfolio through the use of billing analysis methods to estimate furnace savings, rather than relying solely on Regional Technical Forum (RTF) baselines, the Company ultimately moved away from that methodology in response to PUC Staff comments regarding the validity of that methodology for planning purposes.[3] Consequently, verified therm savings within the Residential Midstream program were lower than expected, reducing portfolio benefits included in the UCT calculation, while program costs remained largely unchanged. This placed downward pressure on cost-effectiveness.

Limited customer participation, particularly within the Site-Specific program, also contributed to reduced portfolio cost-effectiveness. The program, which typically delivers significant custom commercial and industrial savings opportunities, completed only two natural gas projects during 2025, generating 2,838 verified therms of savings and $10,508 in incentive payments. Although these projects achieved a 95 percent realization rate and generally performed as expected, the low participation level limited the program's contribution to overall portfolio savings. As a result, fewer therm savings were available to offset ongoing administrative, implementation, and evaluation costs, reducing the overall benefits reflected in the UCT. While the individual projects performed well, the project pipeline was insufficient to meaningfully improve portfolio-level cost-effectiveness.

Finally, more granular RTF verification methodologies reduced savings for certain measures relative to planning assumptions, and some claimed measures did not meet required documentation or efficiency standards. Although several programs performed well, including Residential Midstream and most Commercial and Industrial offerings, those results were insufficient to offset lower realization rates and the broader cost-effectiveness pressures affecting the natural gas portfolio.

Throughout the year, the company regularly engaged with Idaho Public Utilities Commission (IPUC) staff and its Energy Efficiency Advisory Group (EEAG) regarding concerns about the natural gas portfolio's cost effectiveness.[4] Avista provided updates on program performance, discussed factors contributing to declining cost-effectiveness, and highlighted the importance of strong participation in the Site-Specific program to support overall portfolio results.

Impact Evaluation

As a result of the impact evaluation completed by the evaluator, the following realization rates were achieved in the Idaho program portfolio:

- Electric: 100 percent realization rate and 35,456,276 kWh in annual verified savings.

[3] Case No. AVU-G-25-09, Order No. 36975.
[4] The cost effectiveness of the Idaho natural gas portfolio was discussed at both the March 4 and June 25, 2025, EEAG meetings, in addition to multiple meetings with IPUC staff.

- Natural Gas: 95 percent realization rate and 203,384 therms in annual gross savings.

Impact evaluations were completed by Avista's contracted third-party evaluator, ADM, a Qualus Company. See Appendix A for the 2025 Electric Impact Evaluation Report and Appendix B for the 2025 Natural Gas Impact Evaluation Report.

Tariff Rider Balances

At the beginning of 2025, the aggregate Idaho electric and natural gas tariff rider balance was underfunded by approximately $6,986,781. During the year, Avista collected $8,360,174 in tariff rider revenue to support energy efficiency programs and incurred $23,431,283 in program expenditures. By year-end, the electric portfolio had an underfunded balance of $24,563,489, while the natural gas portfolio had an overfunded balance of $2,505,600.

For electric programs, the underfunded balance was primarily influenced by higher-than-expected participation in the Small Business Direct Install Lighting program, which resulted in increased program costs. The Prescriptive Lighting program also experienced participation above forecasted levels, contributing to additional cost increases, though to a lesser extent than the Small Business Direct Install Lighting program. The Commercial/Industrial Site-Specific program also contributed to higher incentive costs, though participation remained generally consistent with initial projections.

The overfunded balance in natural gas programs was primarily attributable to lower-than-expected participation across both residential and commercial offerings. This reduced participation was influenced by several factors, including the significant decline in avoided costs described within this ACR. Participation in the Site-Specific program was especially limited in 2025, likely due in part to lower avoided costs, which typically result in longer project payback periods and reduce the economic attractiveness of efficiency investments.

The table below illustrates 2025 tariff rider activity by fuel type.

Table 9 - Tariff Rider Activity

	Electric	Natural Gas	Total
Beginning Balance (Underfunded)/Overfunded	($8,792,454)	$1,805,673	($6,986,781)
Energy-Efficiency Funding Collected in 2025	$4,917,816	$3,442,358	$8,360,174
Total Funding Available in 2025	($3,874,638)	$5,248,031	$1,373,393
Energy-Efficiency Expenditures	$20,688,852	$2,742,431	$23,431,283
Ending Balances (Underfunded)/Overfunded	($24,563,489)	$2,505,600	($22,057,890)

Commercial/Industrial Sector

Avista offers commercial and industrial customers multiple pathways to participate in its energy efficiency programs. Through the Midstream Program, Avista works with distributors to increase the availability of energy-efficient HVAC, hot water, and foodservice equipment for contractors. Prescriptive measures provide a streamlined option for common improvements, including lighting, building shell upgrades, variable frequency drives (VFDs), and grocer-related measures. Projects that do not fit within the Midstream or Prescriptive offerings may be evaluated through the Site-Specific program, which supports unique or more complex projects requiring custom savings calculations and/or technical assistance from Avista's energy engineering team, such as compressed air, process equipment and controls, and comprehensive lighting retrofits. In some cases, Avista uses a performance-based approach, with incentives paid based on measured building performance over a multiyear period.

In 2025, Avista also continued its Direct Install Lighting program for small businesses, providing low- to no-cost lighting upgrades for Schedule 11 and Schedule 12 customers. The program continued to be well received by both customers and trade allies and represented more than half of the electric savings achieved during the year. Within the Commercial/Industrial natural gas portfolio, the Midstream program delivered the majority of therm savings.

In addition to program offerings, there are several energy efficiency resources available to Avista's commercial and industrial customers, including the Building Operator Certification Program, a national training and certification which helps participants develop skills in commercial building operation, with an emphasis on no-cost and low-cost solutions. An additional option, Trade Ally Connect, is designed to connect utilities with certified trade allies—such as contractors, installers, and energy professionals—to deliver energy-efficient products and services to customers while supporting business growth for trade allies and energy savings for utilities.

Portfolio Performance

The electric portfolio achieved over 250 percent of its 2025 savings goal, with over half of the savings coming from the Small Business Direct Install Lighting program. Other high performers include the Prescriptive Lighting and Site-Specific, all of which achieved at least double their planned savings goal.

The table on the next page shows savings goals established for Avista's Commercial/Industrial Programs for 2025, as well as reported savings and percentage of goal achieved.

Table 10 - Commercial/Industrial Verified vs Planned Savings – Electric

Program	Planned Savings (kWh)	Achieved Savings (kWh)	Percentage of Planned Savings
Building Operator Certification	-	119,000	N/A
Green Motors	-	7,625	N/A
Grocer	30,145	2,919	10%
Commercial/Industrial Midstream	300,329	163,691	55%
Prescriptive Lighting	2,001,191	3,900,750	195%
Small Business Lighting	6,744,200	18,962,969	281%
Commercial/Industrial Shell	15,000	10,121	67%
Site-Specific - Lighting	38,000	91,700	241%
Site-Specific - Other	3,762,000	9,419,907	250%
Total Commercial/Industrial	**12,890,865**	**32,678,682**	**254%**

The Commercial/Industrial Natural Gas Portfolio achieved 111 percent of planned savings in 2025. The Midstream program exceeded expectations, achieving nearly one-and-a-half times its planned savings, while the Shell and Site-Specific programs produced lower-than-expected results. Midstream accounted for 90 percent of Commercial/Industrial therm savings, with Shell and Site-Specific programs representing the remaining 10 percent.

The table below shows planned savings established for Avista's Commercial/Industrial Natural Gas programs for 2025, as well as verified savings and percentage of planned savings achieved.

Table 11 - Commercial/Industrial Verified vs Planned Savings – Natural Gas

Program	Planned Savings (therms)	Achieved Savings (therms)	Percentage of Planned Savings
Commercial/Industrial Midstream	19,868	28,137	142%
Commercial/Industrial Shell	3,326	169	5%
Site-Specific - Other	4,936	2,838	57%
Total Commercial/Industrial	**28,130**	**31,143**	**111%**

Impact Evaluation

In 2025, the Commercial/Industrial Electric Portfolio reported savings of 32,450 MWh and achieved evaluated savings of 32,679 MWh, resulting in a realization rate of 101 percent. The Natural Gas Portfolio reported 31,833 therms and achieved evaluated savings of 31,143 therms, resulting in a 98 percent realization rate (see the program summaries later in this section for individual program realization rates). Further discussion of realization rates is included in the impact evaluation reports appended to this *ACR*.

Cost-Effectiveness

The two tables below show the Commercial/Industrial Portfolio's cost-effectiveness results by fuel type.

Table 12 - Commercial/Industrial Cost-Effectiveness Results – Electric

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$23,083,221	$18,131,300	1.27
Utility Cost Test (UCT)	$23,083,221	$16,337,239	1.41
Participant Cost Test (PCT)	$36,707,090	$15,417,930	2.38
Ratepayer Impact (RIM)	$23,083,221	$18,638,323	1.24

Table 13 - Commercial/Industrial Cost-Effectiveness Results – Natural Gas

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$224,764	$440,627	0.51
Utility Cost Test (UCT)	$224,764	$288,827	0.78
Participant Cost Test (PCT)	$347,746	$274,782	1.27
Ratepayer Impact (RIM)	$224,764	$306,987	0.73

Marketing

In 2025, Avista continued a robust, integrated approach to commercial and industrial energy efficiency marketing, combining relationship-based outreach with expanded digital and paid media tactics. Marketing efforts focused on increasing awareness of energy efficiency opportunities and available rebate programs across a broad range of business types, sizes, and industries.

Business customers were reached through a mix of paid, owned, and earned channels, including digital and search advertising, streaming and broadcast media, social media, print advertising, and the Avista website. Regional Account Executives, energy engineers, and community outreach staff continued to play a central role in building program awareness and supporting participation through ongoing customer relationships and project development.

Power of Change

Power of Change was the first large-scale paid social media advertising campaign in Avista's history. The decision to enter the paid social media market was the result of changing customer communication preferences and demographics. Ads ran on Meta, X, LinkedIn, TikTok, and YouTube, in addition to digital display and streaming. The campaign was also leveraged in the company's sponsorship activations at local sporting events. Ads ran in six-week phases, with a total of six business ads per phase.

The *Power of Change* campaign continued in 2025 as a component of commercial energy efficiency marketing. The campaign delivered seasonally relevant, approachable messaging designed to make energy efficiency more relatable to everyday business operations. Messaging promoted energy-saving behaviors, rebates and programs, and was delivered across digital display, search, streaming, social media, and video platforms, including YouTube. Creative assets were refreshed throughout the year, and both static and motion ads were used across channels.

Figure 2 - Commercial/Industrial "Power of Change" Ads

Rebate and program promotion remained a consistent focus throughout the year. Digital advertising served as the primary paid tactic, supported by print placements in select local publications. Several commercial programs were also marketed in coordination with third-party implementers and trade allies, extending the reach of program information and supporting customer awareness.

Community engagement and sponsorships also supported commercial energy efficiency awareness in 2025, with messaging integrated into select events, materials, and partner touchpoints. These efforts reinforced awareness of energy efficiency programs in familiar, trusted settings. Overall, Avista's 2025 commercial and industrial energy efficiency marketing efforts emphasized consistent, year-round visibility, alignment with evolving customer communication preferences, and coordination across customer-facing teams and paid outreach. These efforts were intended to support broader awareness of Avista's Idaho commercial and industrial energy efficiency programs.

Business Partner Program

The Business Partner Program (BPP) assists rural small business customers to better understand and access Avista's energy efficiency resources, including high-level energy "audits" at no cost to the business owner, budget billing options, and available rebates.

Designed as a concierge-style program, BPP provides hands-on support by having the Program Manager participate in onsite visits when contractors are engaged.

During these visits, customers receive verbal conservation recommendations and written baseline bids for proposed efficiency measures, giving them clear, practical information to evaluate potential energy-saving improvements. This personalized approach strengthens the customer experience and reflects Avista's commitment to delivering responsive, high-quality service to small businesses. In 2025, six site visits were conducted in communities including Coeur d'Alene, Wallace, and Kamiah.

Through BPP, Avista continues to offer the Trade Ally Bid program, which connects customers with qualified vendors such as lighting, HVAC, window, and insulation providers to develop cost estimates for energy efficiency upgrades. By working closely with trade ally partners, Avista is able to provide energy assessments, help customers navigate the efficiency incentive process, and support access to competitive project bids. This added guidance helps small businesses overcome common barriers, including limited time, budget constraints, and difficulty accessing contractors, while empowering them to move forward with meaningful energy efficiency improvements.

Commercial/Industrial Program Summaries

Site-Specific Program

Description

The Site-Specific program provides custom incentives for energy efficiency projects that do not meet the eligibility requirements of Avista's Prescriptive or Midstream offerings. Incentives are based on verified first-year energy savings, excluding behavioral changes, and are available for measures with an expected useful life of at least 10 years. Incentive levels are determined using the simple payback of each individual project.

Avista Account Executives work directly with customers to identify and develop Site-Specific efficiency opportunities across a variety of applications, including building shell improvements, lighting upgrades, appliances, compressed air systems, industrial processes, and non-prescriptive motors. Most projects completed through the program involve lighting and building shell measures.

As part of the Site-Specific portfolio, Avista also offers a Pay-for-Performance option for commercial and industrial customers. This performance-based approach rewards customers for implementing whole-building energy improvements that deliver measurable reductions in energy consumption at the meter level. Participants receive incentive payments over a three-year period based on verified energy savings achieved each year, with payments issued annually at a predetermined incentive rate.

Table 14 - Commercial/Industrial Site-Specific Program Metrics

Site-Specific – Electric	
Participation, Savings, and Costs	
Conservation Projects	15
Overall kWh Savings	9,511,607
Incentive Spend	$1,971,896
Non-Incentive Utility Costs	$869,613
Idaho Energy-Efficiency Rider Spend	$2,841,509
Site-Specific – Gas	
Participation, Savings, and Costs	
Conservation Projects	2
Overall Therm Savings	2,838
Incentive Spend	$10,509
Non-Incentive Utility Costs	$12,059
Idaho Energy-Efficiency Rider Spend	$22,568

Program Activities

The Site-Specific Program continued to deliver strong electric savings in 2025. Projects in 2025 were generally large, savings-intensive custom projects, particularly within the non-lighting or “Other” project category. The natural gas Site-Specific program experienced lower participation and savings in 2025 than expected, achieving only 2,838 therms. Because custom natural gas projects often require technical review and administrative support regardless of project size, lower project volume can result in higher non-incentive costs on a per-therm basis. Despite lower than expected savings, the 2025 natural gas impact findings showed a 95 percent realization rate, indicating that completed projects performed close to expected levels.

Program Changes

No program changes were made in 2025.

Program Marketing

Customer engagement efforts for the Site-Specific and Pay-for-Performance programs focused on targeted outreach by Avista Account Executives and the Program Manager to identify and develop energy efficiency opportunities for Avista’s commercial customers. These efforts included participation in chamber of commerce events, commercial association events, presentations to business and community organizations, event tabling, and direct customer engagement throughout Avista’s service territory. Program awareness was further expanded through referrals from the Small Business Partner Program when customer projects were better aligned with Site-Specific or Pay-for-Performance offerings.

Positive customer experiences and resulting word-of-mouth referrals helped increase program visibility and encourage participation among local businesses. The *Power of Change* business ads were the most widely used and comprehensive business marketing assets, with consistent placement across digital, social, broadcast, streaming, and connected TV channels, including high-visibility events such as NFL games and March Madness. The campaign also appeared regularly in Avista’s monthly *How’s Business* digital newsletter and quarterly in the Spokane Homebuilders Association’s *Builders Overview* publication, which reaches readers in both Washington and Idaho. In addition, Avista ran year-round digital and search campaigns promoting specific rebate programs in Washington and Idaho. Idaho ads targeted Idaho ZIP codes and business customers and directed customers to rebates for measures such as lighting, insulation, and HVAC. Together, these outreach and marketing activities supported customer awareness, engagement, and adoption of energy efficiency improvements.

Impact Evaluation

The tables on the next page show reported and evaluated electric and natural gas savings for the Site-Specific Program in 2025.

Table 15 - Commercial/Industrial Site-Specific Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Site-Specific - Lighting	101,225	91,700	91%
Site-Specific - Other	9,746,501	9,746,501	100%
Total Site Specific	**9,847,726**	**9,838,201**	**100%**

Table 16 - Commercial/Industrial Site-Specific Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
Site-Specific - Other	3,003	2,838	95%

Recommendations

Evaluators noted that some expected savings methodologies could not be fully reverse engineered from the available documentation, requiring alternative approaches, such as billing analysis, to estimate verified savings. To improve future evaluations, it is suggested that Avista provide the original expected savings Excel calculators or tools whenever possible, as these would support more complete and accurate verified savings calculations for complex custom measures. Avista will consider this approach to support more accurate savings calculations.

Plans for 2026

In 2026, Avista plans to continue offering the Site-Specific and Pay-for-Performance programs to Idaho electric customers, while discontinuing participation for gas customers who are not under contract by year-end 2026.

Avista will continue evaluating its measurement and verification processes to identify opportunities for improvement, strengthen program performance, and support effective delivery of verified energy savings. The company will also continue offering the Small Business Partner Program, including the Trade Ally Bid component, as part of its business customer energy efficiency portfolio.

Avista will support continued participation through targeted customer outreach, proactive account management, and coordination with trade allies and business partners to promote program awareness and identify qualifying energy efficiency opportunities.

Prescriptive Lighting Program

Description

The Commercial/Industrial Prescriptive Lighting Program encourages business customers to upgrade inefficient lighting systems through standardized, per-unit financial incentives for qualifying measures. The program simplifies participation by offering pre-determined incentives for common lighting retrofits, supporting the adoption of high-efficiency LED lighting and advanced controls across Avista's commercial and industrial customer base.

Table 17 - Commercial/Industrial Prescriptive Lighting Program Metrics

Prescriptive Lighting – Electric	
Participation, Savings, and Costs	
Conservation Projects	471
Overall Therm Savings	3,900,750
Incentive Spend	$835,378
Non-Incentive Utility Costs	$323,828
Idaho Energy-Efficiency Rider Spend	$1,159,206

Program Activities

In 2025, the Prescriptive Lighting Program continued to provide a stable and efficient pathway for commercial and industrial customers to pursue cost-effective lighting upgrades. Inflationary pressures on labor and materials persisted, and Avista maintained its incentive structure to help offset these costs and support continued customer participation. As anticipated, overall project throughput remained moderated as eligible small business customers were increasingly served through the Direct-Install Lighting Program; however, the Prescriptive Program continued to play an important role in serving mid-size and larger customers. Program delivery remained steady throughout the year, supported by ongoing trade ally engagement, Account Executive outreach, and the expanded use of online tools to streamline customer participation and maintain progress toward annual savings goals.

Program Changes

Revisions to incentive amounts, measure eligibility, and baseline assumptions, effective January 1, 2025, were developed through Avista's annual review of market conditions, energy savings assumptions, and program performance. Advance notice and transition provisions were provided to customers and trade allies to ensure continuity and clear understanding of updated program requirements.

Program Marketing

The success of the Prescriptive Lighting Program continues to depend on clear communication with lighting distributors, electricians, trade allies, and customers regarding program requirements, incentive opportunities, and application processes.

Marketing efforts in 2025 included maintaining program information on Avista's website, direct outreach to participating contractors, targeted email communications regarding program updates, and support from regionally based Account Executives who help connect commercial and industrial customers with available incentives. Program changes were communicated through website updates and direct stakeholder communications, with advance notice provided to allow customers and contractors time to plan and complete projects under existing program requirements.

Impact Evaluation

The table below shows reported and evaluated electric savings for the Prescriptive Lighting Program in 2025.

Table 18 - Commercial/Industrial Prescriptive Lighting Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Prescriptive Lighting	3,818,500	3,900,750	102%

Recommendations

The Prescriptive Lighting Program evaluation found a realization rate of 102 percent, indicating that expected and verified energy savings were closely aligned. Evaluators recommended that Avista consider applying an in-service rate to expected savings calculations to account for efficient lighting equipment that may be purchased but not ultimately installed. Avista acknowledges this recommendation and will consider its applicability in future program planning; however, given the close alignment between projected and verified savings, the current methodology continues to provide a reasonable balance between reporting accuracy and administrative simplicity.

Plans for 2026

Avista will continue to refine and maintain the program to reflect evolving market conditions, technology availability, and customer needs. Leveraging the measure-level detail available in iEnergy, the company will review lighting measures and incentive offerings to ensure they remain aligned with current product performance and market adoption trends. Avista will also continue evaluating opportunities to incorporate additional cost-effective lighting technologies into the program where appropriate.

Small Business Direct Install Lighting Program

Description

Small business customers served under rate schedules 11 and 12 are eligible to participate in the Direct Install Lighting Program, which helps reduce energy use and improve lighting quality through a complimentary on-site assessment to identify cost-effective efficiency opportunities. Qualified low- and no-cost measures, such as high-efficiency lamps, fixtures, and lighting controls, are installed directly at the facility, and customers are provided with energy efficiency educational materials to support ongoing savings.

Table 19 - Small Business Direct Install Lighting Program Metrics

Small Business Lighting – Electric	
Participation, Savings, and Costs	
Conservation Projects	1,924
Overall kWh Savings	18,962,969
Incentive Spend	$10,726,872
Non-Incentive Utility Costs	$1,498,769
Idaho Energy-Efficiency Rider Spend	$12,225,641

Program Activities

In 2025, the Small Business Direct Install Lighting Program continued to perform strongly, with participation and energy savings exceeding expectations. Customer engagement was primarily influenced by in-person outreach from participating trade allies, while information featured on the Avista website helped expand program awareness and support self-initiated enrollment. Higher-than-expected demand required adaptive program management, including enhanced coordination with trade allies to balance installation capacity and minor equipment substitutions to address limited supply availability. These actions ensured consistent service delivery, minimized installation delays, and supported continued achievement of cost-effective energy savings throughout the year.

Program Changes

Beginning in early 2025, several program modifications were implemented to better manage spending, improve cost-effectiveness, and align with evolving efficiency standards. Customer eligibility was refined to focus on small commercial customers, including the removal of municipalities, universities, schools, and hospitals in February 2025, followed by additional exclusions in June 2025 for certain franchise businesses, landlords with vacant tenant spaces, and parking lot projects. A program-wide threshold of $0.72 cost per kWh was also established in February 2025 to prioritize higher-value projects.

In response to efficiency standard updates, product eligibility criteria were tightened to reflect the sunset of ENERGY STAR® lamp and luminaire specifications and the adoption of more stringent Design Lights Consortium requirements, reducing the pool of qualifying equipment. Collectively, these changes were not originally anticipated, however, they were implemented to ensure continued regulatory compliance, fiscal stewardship, and alignment with program intent.

Program Marketing

The success of the program continued to rely primarily on participating trade allies to identify eligible customers and promote program participation through direct outreach and customer referrals. Additional program awareness was supported through the Avista website and regional Account Executive outreach. Program marketing emphasized the streamlined customer experience, including complimentary facility assessments and low- to no-cost lighting upgrades made possible through direct application of incentives to contractor invoices. Co-branded program materials and ongoing trade ally engagement helped build customer trust, increase program visibility, and support participation throughout Avista's service territory.

Impact Evaluation

The table below shows reported and evaluated electric savings for the Small Business Direct Install Lighting Program in 2025.

Table 20 - Small Business Direct Install Lighting Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Small Business Lighting	18,592,356	18,962,969	102%

Recommendations

The impact evaluation identified no significant recommendations specific to the Small Business Direct Install Lighting Program. Evaluators found no major data quality or tracking issues within the sampled projects and reported a verified realization rate of 102 percent, indicating that program savings closely aligned with, and slightly exceeded, tracked savings.

Plans for 2026

To support cost-effective program delivery and ensure that funding is available to serve a broad cross-section of small businesses, additional review and approval requirements will be implemented for incentive requests over $50,000. Program performance, market conditions, and evaluation findings will continue to be reviewed throughout the year and incorporated into future program planning as part of Avista's regular annual review cycle.

Commercial/Industrial Prescriptive Non-Lighting Programs

Description

The Commercial/Industrial Prescriptive Non-Lighting Programs provide simple, standardized incentives for a variety of commercial and industrial energy efficiency measures. In 2025, this group of programs included the Green Motors Rewind Program, Commercial Grocer Program, and Commercial Prescriptive Shell Program. These offerings help customers reduce energy consumption through efficient motor repair, commercial refrigeration improvements, and building shell insulation upgrades while providing a streamlined participation experience.

Table 21 - Commercial/Industrial Prescriptive Non-Lighting Program Metrics

Prescriptive Non-Lighting – Electric	
Participation, Savings, and Costs	
Conservation Projects	5
Overall kWh Savings	20,664
Incentive Spend	$15,583
Non-Incentive Utility Costs	$1,302
Idaho Energy-Efficiency Rider Spend	$16,886
Prescriptive Non-Lighting – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	2
Overall Therm Savings	169
Incentive Spend	$5,909
Non-Incentive Utility Costs	$1,018
Idaho Energy-Efficiency Rider Spend	$6,927

Program Activities

Green Motors Rewind Program: In 2025, the Green Motors Rewind Program successfully transitioned to in-house administration following the discontinuation of the regional Green Motors Practices Group in late 2024. To minimize disruption for customers and service centers, Avista maintained the existing incentive structure, eligibility requirements, and RTF savings methodology. Participating service centers continued providing instant rebates at the time of service and submitted documentation directly to Avista. Although participation remained limited, the program preserved a pathway for future qualifying motor rewind projects and maintained continuity for participating vendors.

Commercial Grocer Program: In 2025, the Commercial Grocer Program continued supporting energy efficient refrigeration upgrades at grocery and food retail facilities. The program received applications from national grocery chains implementing equipment improvements across multiple store locations. Standardized refrigeration equipment and

design practices enabled efficient project review and delivery, allowing the program to maintain steady participation and verified energy savings while supporting ongoing customer engagement.

Commercial Prescriptive Shell Program: In 2025, the Commercial Prescriptive Shell Program supported customers completing insulation improvements in walls, attics, and roofs as part of renovation, replacement, and code compliance projects. Program participation and savings remained generally consistent with expectations, and ongoing coordination with customers and trade allies helped ensure timely project completion and effective program administration. The program continued to provide a straightforward incentive pathway for eligible insulation projects while supporting building energy performance improvements.

Program Changes

In 2025, the Commercial Prescriptive Shell Program was transitioned to the Commercial/Industrial Site-Specific Program. The change was made to provide greater flexibility in evaluating insulation projects that did not align well with standardized prescriptive assumptions and to better accommodate project-specific conditions, savings calculations, and customer needs. Following this transition, commercial insulation projects were administered through the Commercial/Industrial Site-Specific Program rather than the Prescriptive Non-Lighting portfolio.

Additionally, the Green Motors Rewind Program transitioned to in-house administration following the discontinuation of utility program services previously provided by the Green Motor Practices Group in late 2024. Program design, incentive levels, and savings methodologies were maintained to minimize impacts to participating customers and service centers.

Program Marketing

In 2025, these programs were promoted through Avista's website, Account Executive outreach, trade ally engagement, and broader commercial energy efficiency marketing efforts. Account Executives and energy engineers worked directly with customers to identify project opportunities and increase awareness of available incentives. Marketing activities also leveraged company-wide conservation campaigns and digital resources to help customers and contractors identify eligible measures and understand program requirements.

Impact Evaluation

The table on the next page shows the reported and evaluated electric savings for the Prescriptive Non-Lighting Program path, as well as realization rates between the evaluated and reported savings for 2025. Overall, the programs achieved a 90% realization rate.

Table 22 - Commercial/Industrial Prescriptive Non-Lighting Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Green Motors	10,529	7,625	72%
Grocer	2,919	2,919	100%
C/I Prescriptive Shell	14,280	14,280	100%
Total Commercial/Industrial	**27,728**	**24,825**	**90%**

As shown in the table below, natural gas programs achieved a realization rate of 27%.

Table 23 - Commercial/Industrial Prescriptive Non-Lighting Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
C/I Prescriptive Shell	628	169	27%

Recommendations

Regarding the 27 percent realization rate for the Prescriptive Shell program, evaluators determined that differences between expected and verified savings methodologies contributed to the variance. In response, Avista transitioned commercial insulation projects to the Commercial/Industrial Site-Specific Program in 2025 to allow greater flexibility in project evaluation and savings determination. Avista will continue to review program tracking requirements and documentation practices to improve data quality and support future evaluations.

Plans for 2026

In 2026, Avista will continue supporting eligible Green Motors Rewind and Commercial Grocer projects while monitoring participation, savings performance, and customer engagement. Commercial insulation projects will continue to be administered through the Commercial/Industrial Site-Specific Program, allowing for greater flexibility in project evaluation and savings determination. Avista will also continue reviewing program performance and evaluation findings to identify opportunities for process improvements and effective delivery of commercial and industrial energy efficiency offerings.

Midstream Program

Description

Avista's Commercial/Industrial Midstream program incentivizes the purchase of high-efficiency HVAC and water heating systems, pumps, and commercial food-service products and works to ensure these products are always in stock for customers. The program involves working directly with distributors, who influence the majority of equipment sales in any given region.

Table 24 - Commercial/Industrial Midstream Program Metrics

Commercial/Industrial Midstream – Electric	
Participation, Savings, and Costs	
Conservation Projects	69
Overall kWh Savings	163,691
Incentive Spend	$74,140
Non-Incentive Utility Costs	$17,373
Idaho Energy-Efficiency Rider Spend	$91,513
Commercial/Industrial Midstream – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	79
Overall Therm Savings	28,137
Incentive Spend	$106,564
Non-Incentive Utility Costs	$152,768
Idaho Energy-Efficiency Rider Spend	$259,332

Program Activities

By working closely with the implementor and evaluator, Avista made key program adjustments in 2025 that significantly improved realization rates, better aligning expected savings with program performance. Program participation continues to increase.

Program Changes

In 2025, the program began incentivizing Pump Energy Index (PEI) pumps and heat pumps for space constrained environments such as manufactured homes. Within the commercial food service space, new measures included conveyor broilers, gas cooktops, and pressure fryers. Fryers, steamers and dishwashers were removed from the program in 2025, along with electric cooktops and natural gas griddles. Only AHRI2 and dual-rated heat pumps were eligible for incentives.

Program Marketing

Midstream program marketing took place primarily through participating distributors. In-person events, trainings, signage, counter mats and collateral were used to highlight the

program to contractors. Email communication was used for sharing key program information and deadlines.

Impact Evaluation

The tables below show reported and evaluated electric and natural gas savings for the Midstream Program in 2025.

Table 25 - Commercial/Industrial Midstream Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Commercial/Industrial Midstream	163,821	163,691	100%

Table 26 - Commercial/Industrial Midstream Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
Commercial/Industrial Midstream	28,202	28,137	100%

Plans for 2026

In 2026, Avista will consider adjusting incentives as needed to ensure a cost-effective program. Avista will also add condensing gas unit heaters and radiant heaters while discontinuing commercial gas rack ovens.

Building Operator Certification Program

Description

Building Operator Certification (BOC) is a national training and certification program which helps participants develop skills in commercial building operation, with an emphasis on no- and low-cost solutions. Competency is demonstrated through project work involving the participants' own buildings and equipment.

Table 27 - Building Operator Certification Program Metrics

Building Operator Certification – Electric	
Participation, Savings, and Costs	
Conservation Projects	1
Overall kWh Savings	119,000
Incentive Spend	$0
Non-Incentive Utility Costs	$2,484
Idaho Energy-Efficiency Rider Spend	$2,484
Building Operator Certification – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	-
Overall Therm Savings	-
Incentive Spend	$0
Non-Incentive Utility Costs	$0
Idaho Energy-Efficiency Rider Spend	$0

Program Activities

Avista continued partnering with Building Potential to offer all customers managing commercial buildings a discount on BOC training, which is offered both virtually and in person throughout the year. Given the opportunity to offer in-person BOC training in the Spokane area in 2025, Avista actively recruited commercial customers to participate.

Program Changes

No program changes were made in 2025.

Program Marketing

Program staff worked directly with Account Executives to share the program with potential participants. Program availability is highlighted on an ongoing basis on the Building Potential website.

Plans for 2026

Avista will continue to highlight this opportunity to interested commercial customers in 2026.

Residential Sector

Avista offers a broad portfolio of residential programs designed to help customers reduce energy use while improving comfort in their homes. The portfolio is structured to support the equitable distribution of clean, efficient, and affordable energy benefits across customer segments throughout the company's Idaho service territory. In 2025, nearly $2.1 million in rebates and direct benefits were provided to Idaho residential customers, helping offset project costs and enabling customers to complete desired energy efficiency upgrades. Collectively, programs within the residential portfolio achieved 2,635,482 kWh and 168,408 therms in energy savings.

Portfolio Performance

The electric portfolio achieved 56 percent of its 2025 planned savings, supported by strong results from the Residential Shell program, which met 71 percent of planned savings, and the Midstream program, which achieved 53 percent. While no planned savings were anticipated for the Fuel Conversion, Home Energy Audit, and Home Insulation programs, each produced measurable savings that will help to inform future program planning. The Appliances and ENERGY STAR® Homes programs also generated measurable savings, though results were below expectations.

The table below shows planned savings assigned to Avista's residential programs for 2025, as well as verified savings and the percentage of planned savings achieved.

Table 28 - Residential Programs Verified vs Planned Savings – Electric

Program	Planned Savings (kWh)	Achieved Savings (kWh)	Percentage of Planned Savings
Appliances	109,924	26,382	24%
ENERGY STAR® Homes	108,796	44,243	41%
Fuel Conversion	-	82,406	0%
Home Energy Audit	-	86,914	0%
Home Insulation Program	-	11,436	0%
Residential Midstream	4,254,544	2,234,477	53%
Residential Shell	211,155	149,624	71%
Total Residential	**4,684,420**	**2,635,482**	**56%**

The residential natural gas portfolio exceeded its 2025 planned savings, achieving 107 percent of target. Performance was driven primarily by the Appliances program, which substantially surpassed expectations at 808 percent of planned savings, along with the Midstream and Shell programs, both of which exceeded 100 percent of planned savings. Although no savings were planned for the ENERGY STAR® Homes program in 2025, the program still contributed a modest 301 therms to overall natural gas portfolio savings.

The table below shows planned savings assigned to Avista's residential natural gas programs for 2025, as well as verified savings and percentage of planned savings achieved.

Table 29 - Residential Programs Verified vs Planned Savings – Natural Gas

Program	Planned Savings (therms)	Achieved Savings (therms)	Percentage of Planned Savings
Appliances	511	4,123	808%
ENERGY STAR® Homes	-	301	0%
Residential Midstream	139,458	142,775	102%
Residential Shell	16,975	21,209	125%
Total Residential	**156,943**	**168,408**	**107%**

Impact Evaluation

The residential sector saw high realization rates in 2025, due primarily to high realization rates for the ENERGY STAR® Homes and Midstream programs for both electric and natural gas. See program summaries, as well as Appendices A and B, Electric and Natural Gas Impact Evaluation Reports, for additional information.

- Electric: Verified savings of 2,635,482 kWh, resulting in a realization rate of 98 percent.
- Natural Gas: Verified savings of 163,005 therms, resulting in a realization rate of 94 percent.

Cost-Effectiveness

The tables below show residential cost-effectiveness results by fuel type.

Table 30 - Residential Cost-Effectiveness Results – Electric

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$3,467,119	$4,796,677	0.72
Utility Cost Test (UCT)	$3,467,119	$1,699,667	2.04
Participant Cost Test (PCT)	$4,358,880	$3,988,771	1.09
Ratepayer Impact (RIM)	$3,467,119	$1,885,246	1.84

Table 31 - Residential Cost-Effectiveness Results – Natural Gas

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$1,623,210	$2,058,662	0.79
Utility Cost Test (UCT)	$1,623,210	$1,465,266	1.11
Participant Cost Test (PCT)	$2,831,136	$1,801,322	1.57
Ratepayer Impact (RIM)	$1,623,210	$1,563,467	1.04

Marketing

In 2025, Avista continued to evolve its residential energy efficiency marketing approach to better align with how customers seek out and engage with information. Building on prior-year efforts, the company emphasized digital-first, audience-informed tactics while maintaining a mix of owned, paid, and earned channels to support broad awareness of energy-saving behaviors, rebates, and programs.

Seasonal education remained a core strategy, with campaigns such as “winter bill” and general energy-saving tips helping customers better understand actions they could take to manage energy use and costs during higher-demand periods. These messages were reinforced through email outreach, bill inserts (where timing allowed), Avista’s customer newsletter, social media, and targeted digital advertising.

Program promotion was delivered consistently throughout the year through the “rebates” campaign. While the campaign was primarily digital, print ads also ran in local publications. Digital content was promoted in both English and Spanish, increasing awareness of Avista’s incentive programs designed to help make energy-efficient equipment upgrades more accessible.

Avista also leveraged its website as a key engagement tool, making ongoing updates and improvements to residential energy efficiency content to reflect current programs, clarify customer pathways, and align with paid and organic outreach. Web content supporting residential energy efficiency programs continued to be available in Spanish, with Russian added later in the year. Energy efficiency pages remained among the most-viewed pages on myavista.com, with paid advertising contributing to traffic and engagement.

In addition to paid and owned channels, residential energy efficiency awareness was supported through community sponsorships and local events, where messaging was integrated into programs, signage and in-venue placements. These efforts helped reinforce energy efficiency concepts in trusted, familiar settings.

Overall, Avista’s 2025 residential marketing efforts focused on increasing exposure to energy efficiency information, improving message relevance, and maintaining consistent, year-round visibility across platforms customers already use. The overarching goal of these efforts was to support broader awareness of Idaho residential energy efficiency programs.

Power of Change

A primary focus in 2025 was the continuation of Avista’s *Power of Change* campaign, which ran in multiple phases throughout the year. The campaign delivered seasonally relevant, benefits-driven messaging designed to make energy efficiency relatable to everyday life. *Power of Change* residential messages offered tips on low-cost ways to save energy that were delivered in a light-hearted and humorous tone. It was designed

to increase customer awareness and engagement with energy efficiency, helping drive program participation.

Creative assets were refreshed and optimized throughout the year based on performance insights, with messaging tailored by season and delivered through digital display, search, social media, streaming and video platforms, including YouTube and connected TV. Ads ran in six-week phases, with a total of six ads per phase.

Figure 3 - Residential "Power of Change" Ads

Residential Program Summaries

Midstream Program

Description

Avista's Residential Midstream program incentivizes the purchase of high-efficiency HVAC and water heating equipment and works to ensure these products are always in stock for customers. The program involves working directly with distributors, who influence the majority of equipment sales in any given region.

Table 32 - Residential Midstream Program Metrics

Residential Midstream – Electric	
Participation, Savings, and Costs	
Conservation Projects	1,147
Overall kWh Savings	2,234,477
Incentive Spend	$560,250
Non-Incentive Utility Costs	$670,887
Idaho Energy-Efficiency Rider Spend	$1,231,137
Residential Midstream – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	1,891
Overall Therm Savings	142,775
Incentive Spend	$738,100
Non-Incentive Utility Costs	$202,057
Idaho Energy-Efficiency Rider Spend	$940,157

Program Activities

By focusing efforts on distributors, the Midstream program leverages their recognized influence over contractors and specific equipment sales while mitigating many participation barriers. Distributors work with contractors to submit claims for Avista customers, and claims are then paid promptly. This approach benefits both the customer as well as the company. Customers have improved access, as they may receive an incentive without having to complete any paperwork or have background knowledge of the rebate program, and Avista gains additional savings without the burden of customers having to submit paperwork to the utility.

Program participation continues to increase, and Midstream was a top performing program in both the electric and natural gas portfolios. For 2025, the program achieved 2.2 million kWh in verified savings, as well as 142,775 therms in verified savings, which was over 100 percent of planned savings.

Program Changes

By working closely with the implementor and evaluator, Avista made key program adjustments in 2025 that significantly improved realization rates, better aligning expected savings with program performance. Additionally, the program began incentivizing heat pumps for space constrained environments, such as manufactured homes. Both AHRI2 and dual-rated heat pumps were eligible for incentives.

Program Marketing

Midstream program marketing takes place primarily through participating distributors. In-person events, trainings, signage, counter mats and collateral are utilized to highlight the program to contractors. Email communication was used for sharing key program information and deadlines.

Impact Evaluation

The tables below show reported and evaluated electric and natural gas savings for the Midstream Program in 2025.

Table 33 - Residential Midstream Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Residential Midstream	2,231,463	2,234,477	100%

Table 34 - Residential Midstream Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
Residential Midstream	147,031	142,775	97%

Recommendations

In 2025, Idaho PUC staff encouraged Avista to change its evaluation method for residential furnaces from a treatment-only billing data regression analysis used by the evaluator to a post-program regression analysis, resulting in a slight decrease in verified savings per residential furnace[5]. Staff stated the revised methodology would reduce bias by considering program participants and statistically similar non-participants The baseline and expected full-load hours values for residential boilers were also adjusted to account for boiler sizes at the recommendation of the evaluator.

Plans for 2026

In 2026, Avista will consider adjusting incentives as needed to ensure a cost-effective program.

[5] See Order No. 36975 (Case Nos. AVU-E-25-12 and AVU-G-25-09)

Prescriptive Programs

Prescriptive programs provide customers with a streamlined path to implement qualifying energy efficiency upgrades through pre-defined incentives, eligibility requirements, and savings values. In 2025, the program supported a variety of residential energy-saving opportunities designed to reduce energy consumption, improve customer comfort, and lower utility costs. Prescriptive measures are evaluated using standardized savings assumptions based on typical installations and operating conditions rather than project-specific analyses. These measures are generally characterized by consistent performance, broad applicability, and a level of complexity that does not warrant a customized approach, making them well-suited for standardized program delivery.

ENERGY STAR®/NEEM Manufactured Homes Program

Description

The Idaho Manufactured Home Rebate program provides incentives to customers who purchase qualifying ENERGY STAR® certified manufactured homes through NEEM 2.0. Eligible homes must be new primary residences and use Avista-provided electricity for space heating and/or water heating. The program supports the adoption of high-efficiency manufactured homes that reduce energy use, lower utility costs, and improve customer comfort.

Table 35 - ENERGY STAR®/NEEM Manufactured Homes Program Metrics

ENERGY STAR® Homes – Electric	
Participation, Savings, and Costs	
Conservation Projects	12
Overall kWh Savings	44,243
Incentive Spend	$12,000
Non-Incentive Utility Costs	$22,617
Idaho Energy-Efficiency Rider Spend	$34,617
ENERGY STAR® Homes – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	2
Overall Therm Savings	301
Incentive Spend	$1,200
Non-Incentive Utility Costs	$739
Idaho Energy-Efficiency Rider Spend	$1,939

Program Activities

In 2025, the Idaho Manufactured Home Rebate program continued to support the adoption of high-efficiency manufactured homes for residential customers. Avista monitored the updated RTF to measure guidance during the year and evaluated the impact of revised baseline assumptions on program offerings. This review helped inform

program adjustments to maintain alignment with current savings assumptions while continuing to provide customers with an energy efficiency rebate pathway.

Program Changes

In 2025, Avista evaluated updates to the Idaho Manufactured Home Rebate program in response to revised measure requirements and savings assumptions. Planned updates included transitioning the program from an electric and natural gas offering to an electric-only structure, updating eligibility from NEEM v1.1 to NEEM v2.0 certified homes, and introducing tiered incentives based on home size. These planned changes were intended to allow Avista to continue offering the program while better aligning with current measure requirements and available savings assumptions.

Program Marketing

Marketing efforts throughout the year were primarily focused on planning updates to program materials, including rebate applications, web content, and customer-facing flyers. The program did not have a dedicated direct marketing campaign but remained available through Avista's main rebate webpage and broader *Power of Change* rebate messaging, where customers can view the manufactured home rebate alongside other residential offerings.

Impact Evaluation

The tables below show reported and evaluated electric and natural gas savings for the ENERGY STAR®/NEEM Manufactured Homes program in 2025.

Table 36 - ENERGY STAR®/NEEM Manufactured Homes Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
ENERGY STAR® Homes	39,487	44,243	112%

Table 37 - ENERGY STAR®/NEEM Manufactured Homes Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
ENERGY STAR® Homes	268	301	112%

Recommendations

The evaluators found the ENERGY STAR® Homes program performed well in 2025, with verified savings exceeding projected levels. Their primary recommendation was for Avista to continue strengthening the alignment between its savings assumptions and applicable RTF inputs, including customer location, heating zone, and fuel type. Avista will review these recommendations and update program assumptions and tracking practices where appropriate.

Plans for 2026

In 2026, Avista plans to continue the Idaho Manufactured Home Rebate program with updates informed by 2025 program performance, revised RTF measure guidance, and evaluator feedback. Planned changes include transitioning to an electric-only offering, updating eligibility to NEEM v2.0 certified homes, and aligning incentives by home size. Avista will also continue reviewing savings assumptions and tracking practices to support consistency with applicable RTF inputs and evaluation requirements.

Residential Appliances Program

Description

The Residential Appliances program provides rebates to qualified residential customers who purchase eligible ENERGY STAR® certified appliances. Eligible measures include refrigerators, freezers, front-load washers, and front-load dryers. The program offers a prescriptive pathway for customers to adopt higher-efficiency appliances that reduce household energy use.

Table 38 - Residential Appliances Program Metrics

Appliances – Electric	
Participation, Savings, and Costs	
Conservation Projects	569
Overall kWh Savings	26,382
Incentive Spend	$45,553
Non-Incentive Utility Costs	$4,709
Idaho Energy-Efficiency Rider Spend	$50,261
Appliances – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	283
Overall Therm Savings	4,123
Incentive Spend	$29,194
Non-Incentive Utility Costs	$2,454
Idaho Energy-Efficiency Rider Spend	$31,648

Program Activities

In 2025, the Residential Appliances program continued to offer a prescriptive rebate pathway for qualifying ENERGY STAR® certified appliances. Avista reviewed program performance and evaluator feedback and began planning updates to the clothes washer and clothes dryer offerings to better align program eligibility, documentation, and savings assumptions with current measure requirements.

Program Changes

During the year, Avista began evaluating updates to the Residential Appliances program based on program performance, market conditions, RTF values, and evaluator feedback. Planned updates focused on clarifying eligibility requirements for clothes washer and clothes dryer rebates, including service and fuel-type requirements needed to better align with current savings assumptions. The smart thermostat measure was discontinued in 2025. These changes were intended to improve program clarity, support more accurate reporting, and maintain alignment with applicable measure requirements.

Program Marketing

Marketing efforts for the Residential Appliances Program were maintained through Avista's main rebate webpage and broader residential rebate communications. Customers could view appliance rebates alongside other available residential offerings through Avista's online rebate resources and general *Power of Change* rebate messaging. Avista also began planning updates to program materials to reflect changes to eligible measures and customer requirements.

Impact Evaluation

The tables below show reported and evaluated electric and natural gas savings for the Residential Appliances program in 2025.

Table 39 - Residential Appliances Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Appliances	106,215	26,382	25%

Table 40 - Residential Appliances Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
Appliances	5,595	4,123	74%

Recommendations

The 2025 electric and gas evaluations found that Residential Appliances realization rates were impacted by differences between Avista's expected savings assumptions and the more detailed RTF measure requirements. Evaluators recommended improving alignment with applicable RTF inputs, including equipment efficiency, fuel type, water heating type, and product documentation. Avista will apply these recommendations and update program eligibility, documentation requirements, and tracking practices as appropriate.

Plans for 2026

In 2026, Avista plans to continue the Residential Appliances program with updates informed by program performance, market conditions, and evaluator feedback. Planned

updates include revised eligibility requirements for clothes washer and clothes dryer rebates to better align with current savings assumptions and applicable fuel-type requirements. Avista will also continue reviewing documentation and tracking practices to support improved consistency between reported and verified savings. While the smart thermostat measure was discontinued in 2025, Avista is evaluating whether a future offering may be appropriate under updated program criteria.

Home Insulation Program

Description

Avista's Home Insulation Program (HIP) encourages residential customers to improve their home's building envelope by adding insulation and reducing air leakage to lower energy use and improve comfort. The program provides incentives for qualifying attic, wall, floor, and duct insulation, as well as duct sealing. In 2025, insulation measures were initially offered through a prescriptive pathway before transitioning to a direct-install model in August 2025. Under this model, participating contractors assess the home, confirm eligibility, install qualifying measures, and handle required documentation, with rebates applied upfront to reduce customer costs.

Table 41 - Home Insulation Program Metrics

Home Insulation Program – Electric	
Participation, Savings, and Costs	
Conservation Projects	8
Overall kWh Savings	11,436
Incentive Spend	$8,754
Non-Incentive Utility Costs	$5,846
Idaho Energy-Efficiency Rider Spend	$14,600

Program Activities

Through July 2025, insulation measures were offered through a prescriptive pathway, providing customers with a straightforward way to complete qualifying insulation projects and receive incentives based on predefined savings and eligibility requirements. This pathway continued to deliver reliable energy savings and comfort improvements, with impact evaluation results showing insulation savings closely matching or slightly exceeding expected values across both the electric and gas evaluations.

Building on concerns raised in 2024 regarding contractor practices and quality of work, Avista completed its third-party insulation inspection effort in 2025 to verify installation quality and program compliance. The results of this quality assurance work reinforced the need for closer coordination with participating contractors and stronger program oversight. In response, Avista transitioned insulation measures to a direct-install model under the HIP in August 2025 to simplify participation and improve customer experience. Under this model, participating contractors assess the home, confirm eligibility, install

qualifying measures, and handle required documentation, with rebates applied upfront to reduce customer costs, allowing Avista and its third-party implementation team to adaptively manage the program while making the pathway easier for customers to complete.

Program Changes

In August 2025, Avista transitioned long-standing insulation measures from a prescriptive pathway to a direct-install model, in an effort to simplify participation and improve customer experience. Under the direct-install model, participating contractors assess the home, confirm eligibility, install qualifying measures, and handle required documentation, with rebates applied upfront to reduce customer out-of-pocket costs. This change was informed by program performance and quality assurance findings and was intended to strengthen contractor oversight while making the pathway easier for customers to complete. In Idaho, the program was offered for electrically-heated homes.

Program Marketing

Avista supported the HIP through customer communications and outreach efforts, including a series of three emails preparing customers for the end of the previous offering and introducing the new direct-install model, along with advertising placement, bill inserts, and promotion at outreach events. The program is delivered in partnership with a third-party implementer who took a lead role in marketing, while participating installers conducted their own outreach to promote their businesses and generate customer interest.

Impact Evaluation

The tables below show reported and evaluated electric and natural gas savings for the HIP in 2025.

Table 42 - Home Insulation Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Home Insulation Program	11,327	11,436	101%

Recommendations

For 2025, the evaluators found the HIP performed well, with insulation savings closely matching or slightly exceeding expected values. The primary recommendation was to continue aligning expected savings with applicable RTF inputs, including heating zone, heating equipment, and the appropriate insulation R-value change. The evaluators also recommended assigning savings to the nearest RTF insulation bucket to improve consistency between expected and verified savings, and continuing to verify project documentation to confirm measure eligibility and accurate fuel-type assignment. Avista will apply these recommendations as it continues to refine the program while updating savings assumptions and tracking practices where appropriate.

Plans for 2026

In 2026, Avista plans to continue delivering the program. Building on 2025 program performance, quality assurance findings, and evaluator feedback, Avista will continue refining program processes, contractor oversight, and documentation practices.

Residential Fuel Conversion Program

Description

Avista's Residential Fuel Conversion program provides qualifying Idaho Schedule 1 residential electric customers with an incentive to convert electric straight-resistance space and water heating to high-efficiency natural gas equipment. Eligible conversions include electric baseboard or forced-air furnace heat to a natural gas forced-air furnace, as well as electric furnace and water heater combinations to natural gas. To qualify, annual pre-upgrade usage must show 4,000 kWh or more of electric heating use and less than 340 therms of natural gas use. Equipment must be installed by a licensed contractor, with required documentation including project invoices and AHRI certification. Rebates are paid to the customer after installation and receipt of documentation.

Table 43 - Residential Fuel Conversion Program Metrics

Fuel Conversion – Electric	
Participation, Savings, and Costs	
Conservation Projects	11
Overall kWh Savings	82,406
Incentive Spend	$26,100
Non-Incentive Utility Costs	$24,848
Idaho Energy-Efficiency Rider Spend	$50,948

Program Activities

In 2025, the Residential Fuel Conversion program continued to support customers converting electric straight-resistance space and water heating to high-efficiency natural gas equipment through its contractor-installed delivery model, with eligibility confirmed through a review of customer energy usage. Impact evaluation results reinforced the program's strong performance, with verified savings closely matching expected values for most measures. The evaluators identified a small number of installed water heaters that fell slightly below the required efficiency level, which Avista can address through continued documentation review and verification of equipment specifications prior to incentive payment.

Program Changes

No significant changes were made to the Residential Fuel Conversion program during 2025. The program continued to operate under its existing eligibility requirements, incentive structure, and prescriptive pathway.

Program Marketing

In 2025, marketing efforts were maintained through Avista's main rebate webpage and broader residential rebate communications, where customers could view the fuel conversion rebate alongside other available offerings.

Impact Evaluation

The table below shows reported and evaluated electric savings for the Residential Fuel Conversion program in 2025.

Table 44 - Residential Conversion Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Fuel Conversion	90,844	82,406	91%

Recommendations

Evaluators found the Residential Fuel Conversion program performed well in 2025, with verified electric savings closely matching expected values across most measures. The main finding was that two sampled water heaters in the electric-to-natural gas furnace and water heater combination measure did not meet the required efficiency level, lowering that measure's realization rate. The evaluators recommended verifying equipment efficiency through AHRI documentation and full model information prior to incentivizing installation and continuing to review tracking data for accurate heating fuel and equipment information. Avista will apply these recommendations and update documentation and tracking practices as appropriate.

Plans for 2026

In 2026, Avista plans to continue offering the Residential Fuel Conversion program to qualifying Idaho customers, incorporating impact evaluation feedback to strengthen program delivery. Building on 2025 evaluation findings, Avista will focus on verifying equipment efficiency through AHRI documentation and complete model information prior to incentive payment, as well as continuing to review tracking data for accurate heating fuel and equipment details. These efforts are intended to support accurate savings reporting and ensure that incentivized equipment meets applicable efficiency requirements.

Home Energy Audit Program

Description

The Home Energy Audit program offers customers a personalized in-home audit to identify opportunities for energy-efficient upgrades. After the audit, the customer receives a written Home Performance Report detailing the auditors' recommendations, estimated project costs, potential energy savings, directions for installation of some energy-saving measures, and handouts with follow-up information.

Table 45 - Home Energy Audit Program Metrics

Home Energy Audit – Electric	
Participation, Savings, and Costs	
Conservation Projects	108
Overall kWh Savings	86,914
Incentive Spend	$-
Non-Incentive Utility Costs	$2,512
Idaho Energy-Efficiency Rider Spend	$2,512
Home Energy Audit – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	190
Overall Therm Savings	-
Incentive Spend	$-
Non-Incentive Utility Costs	$-
Idaho Energy-Efficiency Rider Spend	$-

Program Activities

The program remained popular in 2025 and approximately 40 audits were conducted each week. The waitlist time ranged from two to six months; this variability was due to marketing efforts that caused surges of applications.

Program Changes

There were no program changes in 2025.

Program Marketing

A marketing push using targeted emails resulted in a surge in applications during the summer months of 2025.

Impact Evaluation

The tables on the next page show reported and evaluated electric and natural gas savings for the Home Energy Audit program in 2025.

Table 46 - Home Energy Audit Program Impact Findings – Electric

Program	Expected Savings (kWh)	Achieved Savings (kWh)	Realization Rate
Home Energy Audit	-	86,914	NA%

Table 47 - Home Energy Audit Program Impact Findings – Natural Gas

Program	Expected Savings (therms)	Achieved Savings (therms)	Realization Rate
Home Energy Audit	-	-	NA%

Recommendations

Initially, Avista planned to continue the program into 2026; however, after reviewing its cost-effectiveness, it was determined that continuing to offer the program to Idaho natural gas customers would not be cost-effective.

Plans for 2026

Offering home energy audits for Idaho natural gas-heated homes proved not to be cost-effective, and customers were notified that the program would end beginning in March 2026.

Low-Income Program

Description

Avista partners with a Community Action Partnership (CAP) agency, CAP Lewiston, to deliver weatherization and energy efficiency services to income-qualified households across ten counties in the company's Idaho service territory. Through this partnership, customers gain access to a comprehensive network of programs and funding sources designed to improve home energy performance, reduce utility costs, and enhance comfort and safety. After confirming income qualification, CAP provides home energy assessments, conservation education, and installation of eligible energy-efficiency measures.

Program Activities

In 2025, Avista provided CAP Lewiston with $875,000 in weatherization funding, along with an additional $75,000 dedicated to conservation education and customer outreach activities. This funding supports a wide range of electric and natural gas efficiency improvements tailored to the specific needs of each participating household.

CAP Lewiston maintains flexibility in allocating program funds between electric and natural gas measures, allowing services to be targeted where they will provide the greatest benefit. To qualify for residential shell improvements, such as insulation, windows, and air sealing measures, participating homes must meet minimum annual energy-use thresholds for Avista electric or natural gas service. Eligibility requirements also apply to heating system upgrades, including conversions from electric resistance heating to heat pumps or natural gas furnaces. These requirements help ensure that installed measures deliver meaningful energy savings and long-term value for customers.

The annual funding allocation includes reimbursement for administrative and program support activities, enabling the agency to effectively deliver services throughout Avista's Idaho service territory. In addition, a portion of available funding may be used for eligible health and safety improvements and necessary home repairs that support the successful installation of energy-efficiency measures.

During 2025, the program served income-qualified electric and natural gas customers throughout Avista's Idaho service territory, delivering a portfolio of cost-effective weatherization and energy efficiency improvements. Program achievements are measured through the installation of energy-saving measures, including insulation, air sealing, heating system upgrades, and other qualifying improvements that reduce energy consumption and improve home comfort for participating households.

Table 48 - Low-Income Program Metrics

Low Income – Electric	
Participation, Savings, and Costs	
Conservation Projects	124
Overall kWh Savings	142,112
Incentive Spend	$842,002
Non-Incentive Utility Costs	$160,305
Idaho Energy-Efficiency Rider Spend	$1,002,306
Low Income – Natural Gas	
Participation, Savings, and Costs	
Conservation Projects	134
Overall Therm Savings	3,833
Incentive Spend	$476,684
Non-Incentive Utility Costs	$23,290
Idaho Energy-Efficiency Rider Spend	$499,974

Avista continued to reimburse CAP for 100 percent of the cost of installing most approved weatherization and energy efficiency measures throughout 2025. This funding structure enables agencies to deliver comprehensive weatherization services to income-qualified customers while maximizing energy savings and improving home comfort.

Program results in 2025 demonstrated strong energy savings across both electric and natural gas customer segments. Because weatherization services are provided based on customer eligibility and available program capacity rather than heating fuel type, annual savings can vary between electric and natural gas measures. Program performance is largely influenced by the characteristics of homes served, the condition of existing equipment, and the specific energy efficiency opportunities identified during the home assessment process.

CAP Lewiston may also receive partial reimbursement for measures included on the acceptable measures list that do not independently meet cost-effectiveness requirements. In these cases, reimbursement is based on the avoided-cost energy value associated with the improvement. This approach encourages agencies to prioritize measures that deliver the greatest energy savings and value from a utility perspective while maintaining flexibility to address customer needs.

To support comprehensive home improvements, agencies may also utilize approved health and safety funding to cover eligible costs associated with measures that would otherwise receive only partial reimbursement. This flexibility helps ensure that critical upgrades can be completed when necessary, allowing agencies to address both energy

efficiency and health and safety concerns while delivering lasting benefits to participating households.

Table 49 - Low-Income Program Reported Savings

Program	Planned Savings	Achieved Savings	Percentage of Planned Savings
Electric (kWh)	121,549	142,112	117%
Natural Gas (Therms)	4,239	3,833	90%

Table 50 - Low-Income Program Approved Measure List

Electric Efficiency Measures	Natural Gas Efficiency Measures
Air infiltration Attic insulation Doors – ENERGY STAR®-rated Duct insulation Duct sealing Electric to air-source heat pump (9 HSPF) Electric to ductless heat pump (10 HSPF) Electric to natural gas furnace conversion Floor insulation LED lamps Refrigerator – ENERGY STAR®-rated Wall insulation Windows – ENERGY STAR®-rated, U-factor .30 or less	Boiler (96% AFUE) Doors – ENERGY STAR®-rated Furnace (95% AFUE) Water heater (storage) <55 gallons .65 EF Water heater (tankless) .82 EF Windows – ENERGY STAR®-rated, U-factor .30 or less

Table 51 - Low-Income Program Qualified Rebate Measure List

Electric Efficiency Measures	Natural Gas Efficiency Measures
Air-source heat pump replacement (9 HSPF): $636.45 Door sweep: $3 Electric to natural gas space and water heat: $3,211.14 Electric to natural gas hot water heat: $376.35 Heat pump water heat (Tier 2-3 any size): $281.10	Air infiltration: $73.44 Attic insulation: $1.25/sq ft Door sweep: $1/sq ft Duct insulation: $.096/sq ft Duct sealing: $157.82 Floor insulation: $.97/sq ft Smart thermostat: $75 Storm windows: $1/sq ft Wall insulation: $.75/sq ft

Marketing and Outreach

Customers receiving weatherization services are typically referred through a partner agency's energy assistance program or through Avista's internal customer support channels. Internal referrals may come from the company's Energy Efficiency department or Customer Service organization, including the Customer Assistance Referral and

Evaluation Services (CARES) team. CARES provides specialized assistance to customers who are elderly, have disabilities, are income-qualified, or are experiencing financial, employment-related, or health-related challenges, and may identify customers who could benefit from weatherization services.

Avista also helps connect customers to weatherization services through community outreach efforts. The Community and Economic Vitality team collaborates with Energy Efficiency staff and community partners to educate and support income-qualified customers, seniors, veterans, and individuals with disabilities. Through key outreach activities including energy conservation workshops, participation in food banks and community resource events, mobile outreach efforts, and direct customer education, customers receive regarding available assistance programs, low- or no-cost weatherization opportunities, and practical energy-saving strategies that can improve home comfort and reduce energy costs.

Throughout 2025, outreach efforts in Idaho continued to expand through Avista's partnership with the CAP Lewiston. Agency staff dedicated approximately 1,150 hours to conservation education and customer engagement activities. A combination of phone calls, emails, flyers, presentations, videos, community events (including the North Idaho Student Health & Wellness Fair, and the Idaho Foodbank's North Central Annual Partner Conference), food banks, mobile pantries, and in-person interactions reached more than 3,700 community members with energy efficiency and weatherization information. These events provided opportunities to educate customers on low-cost weatherization strategies, energy-saving habits, and available Avista assistance programs.

In addition to broader community outreach, agency staff provided personalized conservation education to customers through one-on-one conversations in person and over the phone. More than 80 customers received individualized guidance on reducing energy consumption, improving home comfort, and making effective use of weatherization materials. CAP Lewiston also distributed hundreds of conservation education and weatherization kits containing items such as window film, door weather stripping, LED lighting, and other energy-saving products.

Throughout the year, CAP Lewiston continued to refine its outreach approach based on customer feedback and program experience. Preassembled conservation education kits with instructional materials proved to be an effective strategy, allowing staff to spend more time engaging directly with customers while ensuring consistent distribution of energy-saving resources. Agency staff also observed strong customer interest in weatherization products such as window film and door sealing materials, which provide immediate and tangible benefits for improving comfort and reducing energy use. These insights will continue to inform outreach and conservation education efforts moving forward.

Figure 4 - Low-Income Program Weatherization Flyer

The Tables below show the low-income sector cost-effectiveness results by fuel type.

Table 52 - Low-Income Program Cost-Effectiveness Results – Electric

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$184,315	$892,480	0.21
Utility Cost Test (UCT)	$184,315	$1,002,306	0.18
Participant Cost Test (PCT)	$1,026,316	$732,175	1.40
Ratepayer Impact (RIM)	$184,315	$1,012,313	0.18

Table 53 - Low-Income Program Cost-Effectiveness Results – Natural Gas

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$45,002	$438,599	0.10
Utility Cost Test (UCT)	$45,002	$499,974	0.09
Participant Cost Test (PCT)	$521,686	$415,309	1.26
Ratepayer Impact (RIM)	$45,002	$502,209	0.09

Impact Evaluation and Recommendations

On the electric side, the Low-Income Program's impact evaluation showed verified savings below expected savings, with a relatively low realization rate. The main reason for the lower realization rate was that Avista's expected savings methodology was less

granular than the RTF unit energy savings workbooks used by the evaluators. Evaluators also noted that low-income tracking data and documentation were often missing key measure details, which required assumptions about factors such as heating equipment type and baseline versus installed equipment efficiency. The evaluators recommended improving tracking data completeness and consistency, especially for heating type, measure quantities, and measure-specific attributes, so future evaluations can rely less on secondary data and conservative assumptions.

For natural gas, the Low-Income Program's impact evaluation found the program performed very close to expected savings. The primary issue identified was not program performance, but data quality and tracking limitations. Differences between reported and verified savings were primarily tied to inconsistent measure quantity fields, missing details like exterior door square footage and installed window type, and the need to apply single-family RTF values to manufactured and multifamily homes when more specific data was unavailable. The evaluator's recommendation was to improve future tracking by standardizing measure-specific fields, capturing key RTF inputs, and adding eligibility checks – such as confirming ENERGY STAR® certification for storage tank water heaters – to reduce assumptions and improve future realization rate accuracy.

Plans for 2026

Avista will continue advancing weatherization efforts in Idaho through its partnership with CAP Lewiston. Through the intake and eligibility review process, the agency will identify households with high energy burdens, and Avista will support customer identification, outreach, and engagement efforts to ensure eligible customers can access available energy efficiency services. The company will also consider the evaluator's impact evaluation recommendations and will make changes to reporting process to capture additional detail as needed.

Pilot Programs

Compressed Air Leak Detection

Description

The Compressed Air Leak Detection Pilot program tests a vendor-supported approach to identifying and verifying compressed air leaks at Idaho commercial and industrial customer facilities using acoustic imaging technology. The pilot provides compressed air system scans, leak identification, repair support, and follow-up verification scans to help customers reduce compressed air waste while allowing Avista to evaluate program delivery, customer participation, and future program potential.

Program Activities

In 2025, Avista continued implementation of the Compressed Air Leak Detection Pilot for Idaho commercial and industrial customers. The pilot used a vendor-supported approach to identify and verify compressed air leaks through acoustic imaging technology. Participating customers received an initial system scan to detect leaks, support for completing repairs, and a follow-up verification scan to confirm that identified leaks had been addressed. This approach allowed Avista to evaluate customer participation, program delivery processes, and the effectiveness of using acoustic imaging to identify energy-saving opportunities in compressed air systems.

Throughout the year, the program team worked closely with the pilot vendor and internal engineering staff to review scan results, verify reporting assumptions, and refine analysis methods used to estimate savings. Lessons learned from customer participation, repair verification, reporting requirements, and program administration helped inform potential future program design and delivery approaches.

Activities in 2025 focused on refining the pilot delivery model and improving data collection processes. During the year, the program implemented a customer participation agreement that standardized participation requirements and collected key compressed air system information to support project evaluation and savings analysis. The pilot also transitioned away from customer self-reported repair activities, instead emphasizing verified repair completion and follow-up leak detection scans to improve consistency, data quality, and program oversight. These enhancements helped Avista better evaluate customer participation, program administration, and opportunities for future program development.

Plans for 2026

This Pilot will continue into 2026.

Research and Development

Consistent with Order No. 35129 in Case Nos. AVU-E-20-13 and AVU-G-20-08, Avista has continued to evaluate research and development (R&D) opportunities that could provide benefits to its Idaho customers and include measurable objectives and performance metrics. While the company has not sought to re-establish R&D funding for any projects to date, it remains committed to identifying and pursuing appropriate opportunities. Should such an opportunity arise, Avista will submit a proposal to the IPUC for review and approval.

Regional Market Transformation

Avista's local energy efficiency portfolio includes programs and supporting infrastructure designed to increase and accelerate adoption of energy efficiency measures across its service territory. These efforts are delivered through a combination of financial incentives, technical assistance, program outreach, and customer education.

Avista alone cannot independently create meaningful impacts in regional or natural markets. As a result, utilities across the Pacific Northwest have collaborated through NEEA to address opportunities that extend beyond the scope or reach of any individual utility. NEEA is an alliance of utilities and energy efficiency organizations that pools resources and shares risk to advance energy efficiency. It supports market transformation by using data and market relationships to influence business practices, improve product testing and performance, and help make efficient products and practices more widely available. Avista has participated in and funded NEEA since the organization was founded in 1997.

Utilities, energy efficiency administrators, and the RTF benefit from NEEA's work through shared knowledge, new conservation measures, and market changes that generate energy savings. Over time, these efforts help make energy efficiency a self-sustaining market standard.

The table below presents 2025 NEEA savings and associated Idaho costs, excluding Avista's internal administrative costs related to participation in NEEA activities and studies. NEEA costs include expenditures for operations and value delivery; energy savings initiatives; investments in market training and infrastructure; stock assessments; evaluations; data collection and other regional and program research; emerging technology research and development; and administrative costs.

Table 54 - NEEA Energy Savings and Participation Costs

Fuel Type	2025 NEEA Energy Savings	2025 NEEA Participation Costs	Avista 2025-2029 Funding Share
Electric	6,833 MWh (0.78 aMW)	$792,741	2.18%
Natural Gas	302,207 therms	$202,425	3.82%

Avista will continue to collaborate closely with NEEA and other regional partners to identify shared priorities and objectives, while also advancing a more comprehensive and customized local market transformation strategy that includes additional investment in, and direct coordination with, the supply chain.

Electric Energy Savings Share

Values provided in NEEA's 2025 annual report represent the amounts allocated to Avista's service territory, which is a combination of site-based energy savings data (where

available) or an allocation of savings based on funding share. NEEA estimates savings at the state level and allocates results to funders based on their share of state residential accounts from the Energy Information Administration (Form EIA-861).

In 2025, 2,978 MWh were attributed to residential initiatives, and 3,416 MWh were attributed to commercial initiatives. The remaining 438 MWh were attributed to industrial and agricultural initiatives.

Natural Gas Energy Savings Share

Over 99 percent of the 302,207 therms acquired through NEEA natural gas savings in Idaho in 2025 were attributed to residential codes related to new construction. The remaining savings were attributed to indirect gas savings (envelope measures for manufactured homes and extended motor products).

Glossary of Terms

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.

advisory group: Avista's group of external interested persons and efficiency program experts who advise on the company's planned energy efficiency activities, as well as activities under consideration.

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 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.

Business Partner Program (BPP): An outreach effort designed to raise awareness of utility programs and services that can assist 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).

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.

Community Action Agency (CAA): An agency (local nonprofit or public organization) that provides programs and services to help low-income individuals and families achieve self-sufficiency and overcome poverty.

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).

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.

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, or categories, of customers 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.

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.

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.

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 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."

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 (i.e., 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.

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 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.

HOU: Hours of use (an annual estimation of lighting or HVAC equipment operation hours).

Idaho Public Utilities Commission (IPUC): Regulators of investor-owned or privately owned utilities that provide natural gas, water, electricity, or some telephone services for profit.

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.

installation verification (IV) report: A detailed report documenting installed conservation measures on a site-specific project.

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 participants.

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.

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.

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.

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 is repaid through regular payments on an existing utility bill.

Participant Cost Test (PCT): The PCT measures quantifiable costs and benefits to the customer participating in a program. Since many customers do not base their decision to participate in a program entirely on quantifiable variables, this test cannot be a complete measure of the benefits and costs of a program to a customer.

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.

ratepayer impact (RIM): A cost-effectiveness test that measures how customer bills or rates are affected by the changes in utility revenues and operating costs caused by the program. This test indicates the direction and magnitude of the expected change in customer bills or rate levels. Lower values equate to less impact on customer bills.

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.

service territory: The areas in Idaho, Washington, and Oregon served by Avista to provide either natural gas or electric service (or both).

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 non-participant 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.

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.

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.

8,760: Total number of hours in a year.

Appendices and Supplements

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Appendix C – 2025 Cost-Effectiveness Tables
Appendix D – 2025 Expenditures by Program
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Appendix F – NEEA 2025 Annual Savings Report – Electric
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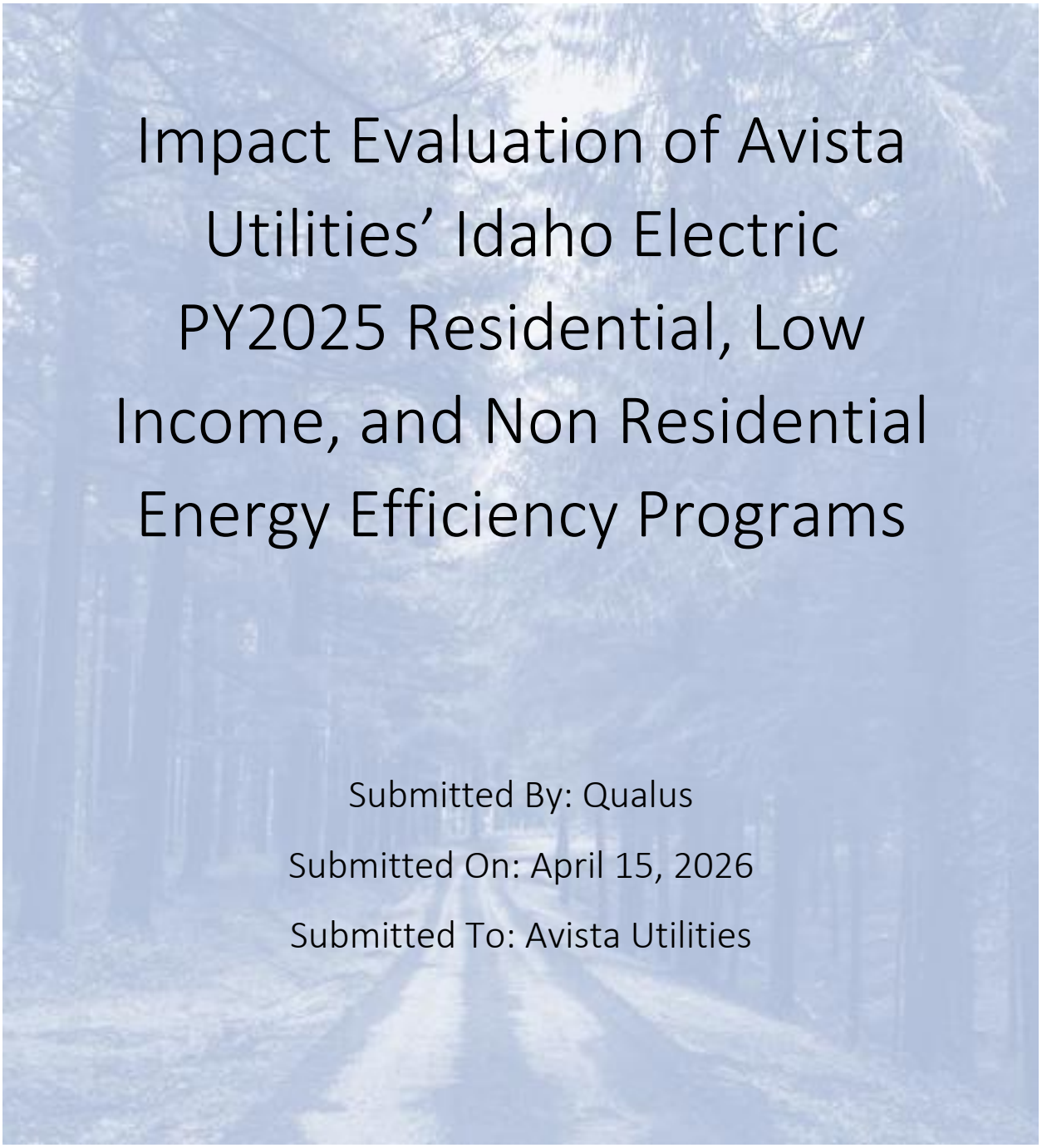
Appendix A: 2025 Electric Impact Evaluation Report



Impact Evaluation of Avista Utilities' Idaho Electric PY2025 Residential, Low Income, and Non Residential Energy Efficiency Programs

Submitted By: Qualus

Submitted On: April 15, 2026

Submitted To: Avista Utilities

Qualus
100 Colonial Center Parkway, Suite 400
Lake Mary, FL 32746

Avista Utilities
1411 E. Mission Ave.
Spokane, WA 99252

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1. Executive Summary

This report is a summary of the impact evaluation of Avista Utilities' (Avista) 2025 program year (PY2025) Residential, Low Income, and Non Residential Electric Energy Efficiency Portfolio in the Idaho service territory. The evaluation, measurement, and verification (EM&V) of PY2025 Idaho Electric portfolio was administered by Qualus, a leading pure-play power services firm. (herein referred to as the "Evaluators").

1.1 Savings Results

The Evaluators conducted an impact evaluation of Avista's Residential, Low Income, and Non Residential programs for PY2025. The verified Residential portfolio savings amounted to 2,635,481.73 kWh with a 98.09% realization rate. The PY2025 verified Low Income portfolio savings amounted to 142,111.79 with a 54.20% realization rate. Of note, the Evaluators also assessed PY2024 savings associated with the Low Income program. The PY2025 Non Residential portfolio savings amounted to 32,678,682.11 kWh with a 100.70% realization rate. The Evaluators summarize the Residential, Low Income, and Non Residential portfolio verified savings in Table 1-1 through Table 1-3, respectively.

Table 1-1: Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate	Incentive Costs
Appliances	569	106,215.00	26,381.67	24.84%	$45,552.70
ENERGY STAR Homes	12	39,487.00	44,242.97	112.04%	$12,000.00
Fuel Conversion	11	90,844.00	82,405.74	90.71%	$26,100.00
Home Energy Audit	108	0.00	86,914.01	NA	$0.00
Home Insulation Program	8	11,327.14	11,436.27	100.96%	$8,754.00
Residential Midstream	1,147	2,231,462.71	2,234,476.95	100.14%	$560,250.00
Residential Shell	234	207,488.24	149,624.12	72.11%	$239,104.50
Residential Total	**2,089**	**2,686,824.08**	**2,635,481.73**	**98.09%**	**$891,761.20**

Table 1-2: Low Income Verified Impact Savings by Year

Program Year	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate	Incentive Costs
2024	64	64,877.67	45,074.37	69.48%	$213,699.98
2025	124	262,202.29	142,111.79	54.20%	$842,001.56
Total	**188**	**327,079.96**	**187,186.16**	**57.23%**	**$1,055,701.54**

Table 1-3: Non Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate	Incentive Costs
Building Operator Certification	1	0.00	119,000.00	NA	$0.00
Green Motors	2	10,529.00	7,625.21	72.42%	$1,400.00
Grocer	1	2,919.00	2,918.58	99.99%	$300.00
Non Residential Midstream	69	163,821.00	163,691.23	99.92%	$74,140.00
Prescriptive Lighting	471	3,818,500.45	3,900,750.23	102.15%	$835,378.12
Small Business Lighting	1,924	18,592,355.85	18,962,968.96	101.99%	$10,726,871.91
Non Residential Shell	2	14,280.42	10,120.54	70.87%	$13,883.38
Site Specific - Lighting	6	101,225.00	91,700.23	90.59%	$19,639.61
Site Specific - Other	9	9,746,501.06	9,419,907.14	96.65%	$1,952,256.22
Total	**2,485**	**32,450,131.78**	**32,678,682.11**	**100.70%**	**$13,623,869.24**

Details on the varied methodologies used to calculate verified savings associated with each measure can be found in the Residential, Low Income, and Non Residential program-level impact evaluation results sections below.

1.2 Conclusions and Recommendations

The following section details the Evaluators' conclusions and recommendations for each the Residential, Low Income, and Non Residential program evaluations.

1.2.1 Conclusions

Key program-specific and overarching conclusions are presented in the following subsections.

1.2.1.1 Residential Programs

The Evaluators provide the following conclusions regarding Avista's Residential electric programs:

- The Evaluators found the Residential Portfolio had total verified savings of 2,635,481.73 kWh with a realization rate of 98.09%. This suggests strong consistency in expected and verified savings methodologies, particularly so for the Residential Midstream program which made up over 84% of total verified residential savings.
- The **Appliances** and **Residential Shell** programs yielded realization rates of 24.84% and 72.11%, respectively. Lower realization rates for these programs were driven by differences in the granularity of the Northwest Power and Conservation Council's Regional Technical Forum (RTF) measure deemed savings estimates as compared to the expected values employed by Avista. The RTF differentiates deemed savings values by a variety of factors including location (per RTF heating/cooling zone), installed equipment efficiency (e.g., window U-factor, insulation R-value, appliance ENERGY STAR most efficient certification), heating fuel (e.g., gas vs. electric), and household heating equipment type (e.g., heat pump vs. electric furnace). In contrast, Avista's expected savings values were more often averaged values with less differentiation by the aforementioned factors. While less granularity in measure differentiation can make it more straightforward to determine ex-ante savings, averaged values can be less precise than the RTF's savings differentiation. This difference in deemed savings value differentiation was a key driver

of lower realization rates. In addition to this difference in methodological granularity, the Evaluators also found several instances in which installed equipment did not meet claimed efficiency standards which also contributed to lower program-wide realization rates.

- The **ENERGY STAR Homes** Program yielded a realization rate of 112.04% primarily due to differences in savings methodologies for gas & electric manufactured homes. The ex-ante methodology seemed to assign a prescriptive savings value to these households that averages across RTF heating zones. In contrast, the Evaluators assigned savings based on the actual location of customers' homes. Since many customers purchased homes in the RTF's Heating Zone 3 (the coldest of the three heating zones), the verified savings were higher than the expected savings yielding a realization rate slightly above 100%.
- The **Fuel Conversion** Program yielded a realization rate of 90.71% primarily due to the fact that two of the four water heaters included in the "E Electric to Natural Gas Furnace & Water Heat" measure did not meet efficiency requirements. Outside of this issue, all other sampled measures yielded a 100% realization rate.
- The **Home Energy Audit** Program did not include expected savings and as such has no realization rate; however, the program yielded 86,914.01 kWh in verified savings for an average of 804.76 kWh per household. This represents substantial electric energy savings and suggests that customers participating in the Home Energy Audit program in PY2025 have made substantial changes to their electric energy usage behavior as compared to 2024.
- The **Home Insulation** Program yielded a realization rate of 100.96% highlighting how verified savings estimates matched expected savings estimates very closely. The non-100% realization rate was due to slight differences in how Avista and the Evaluators applied the RTF's UES savings values for attic insulation.
- The **Residential Midstream** Program yielded verified savings of 2,234,476.95 kWh with a realization rate of 100.96%. Across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM. This realization rate of close to 100% highlights Avista's accurate application of reviewed savings values across the Midstream program.

1.2.1.2 Low Income Programs

The Evaluators provide the following conclusions regarding Avista's Low Income electric programs:

- In 2025 the Evaluators conducted evaluations for the PY2024 and PY2025 **Low Income Program**. In PY2024, the Low Income Program displayed verified savings of 142,111.79 with a 54.20% realization rate. In PY2025, the Low Income Program displayed verified savings of 45,074.37 kWh with a 69.48% realization rate. The lower realization rate was primarily explained by differences in the granularity of Avista expected deemed savings methodologies and RTF deemed savings values per unit energy savings workbooks. In addition to RTF deemed savings estimates being more granular, Low Income tracking data and documentation often was missing key measure information which required the Evaluators to make assumptions regarding factors like heating equipment type and the difference between baseline and installed equipment efficiency.

1.2.1.3 Non Residential Programs

The Evaluators provide the following conclusions regarding Avista's Non Residential electric programs:

- The Evaluators found the Non Residential portfolio had total verified savings of 32,678,682.11 kWh with a realization rate of 100.70%. All programs except for the Green Motors and Non Residential Shell programs had realization rates between 90% and 105%. The Green Motors program had a realization rate of 72.42% while the Non Residential Shell program had a 70.89% realization rate. Broadly there was good consistency between expected and verified savings for the Non Residential portfolio.
- The **Building Operator Certification** program did not yield a realization rate due to no expected savings being claimed; however, the Evaluators identified 119,000.00 kWh verified savings associated with the program.
- The **Green Motors** program yielded a realization rate of 72.42% primarily due to different assumptions regarding the efficiency improvements associated with motor rewinds between the Avista TRM and the RTF UES workbook. Avista's expected savings were 4,535.00 kWh and 5,994.00 kWh for a 300 and a 400 HP motor, respectively. In contrast, the RTF suggests savings of 3,284.11 kWh for the former and 4,341.10 for the latter.
- The **Grocer** and **Non Residential Midstream** program yielded realization rates of 99.99% and 99.92% suggesting excellence consistency between expected and verified savings methodologies. Slight differences in assumptions regarding equipment capacity and rounding differences led to realization rates slightly lower than 100%; however, broadly these programs seem to have yielded savings almost identical to Avista's expected savings estimates.
- The **Prescriptive Lighting** and **Small Business Lighting** programs had realization rates of 102.15% and 101.99% primarily due to differences in assign facility type which affects assumed hours of use and calculated lighting savings. Broadly, expected and verified savings matched closely for both of these programs.
- The **Non Residential Shell** Program had a realization rate of 70.87%. This lower realization rate is explained by the fact that the Evaluators employed an engineering equation with weather inputs specific to Sandpoint, ID to assess measure savings. The integration of actual 2025 weather data into the verified analysis likely contributed to lower savings values than generalized estimates used by Avista for expected savings.
- The **Site Specific** program yielded an overall realization rate of 96.59%, suggesting strong consistency in ex-ante and ex-post evaluation methodologies across most custom projects. In several instances, expected savings methodologies could not be reverse engineered with available documentation and as such the Evaluators employed a different analysis methodology (e.g., a billing analysis) to assess project savings. In a few cases these alternative analysis methodologies yielded lower verified savings than expected which contributed to a realization rate slightly less than 100%.

1.2.2 Recommendations

Key program-specific and overarching recommendations are presented in the following subsections.

1.2.2.1 Residential Programs

The Evaluators offer the following recommendations regarding Avista's Residential electric programs:

- The Evaluators found a handful of instances in which the rebated equipment did not meet the program minimum requirements for efficiency, or did not meet the measure specifications defined by the RTF to achieve expected savings claimed by Avista. The Evaluators recommend Avista check the source AHRI documentation and product level documentation to verify efficiency prior to incentivizing installation of the measure and assigning expected savings.
- The Evaluators also found several instances in which RTF heating zone or household heating fuel included in the tracking data did not match rebate documentation. The Evaluators would recommend Avista regularly review tracking data and compare it to available databases to improve accuracy where possible.
- In addition, there were many instances in which Avista's expected savings values did not align with the more granular estimates included in RTF unit energy savings workbooks. The Evaluators appreciate there is a balance between the ease of applying a single savings value to an installed measure and the improved precision of differentiating savings based on a variety of factors. However, at a minimum the Evaluators would recommend differentiating savings based on location (e.g., via RTF heating/cooling zone) and measure efficiency in the future to ensure expected savings values are as precise as possible.
- Lastly, the Evaluators would suggest Avista include key fields in tracking data across all programs. Certain fields are always used in savings evaluation and without them simplifying assumptions are often required which may reduce the accuracy of savings estimates. The Evaluators appreciate that customers may not completely fill out rebate application forms, which may make tracking data completeness a challenge; however, tracking data should ideally include the following fields at a minimum:
    - A unique identifier for each measure installed
    - Household space heating fuel and equipment type (e.g., heat pump vs. electric furnace)
    - Household water heating fuel and equipment type
    - Household address including zip code
    - Whether or not the household has cooling equipment
    - Measure installation quantity and square footage for relevant measures like windows and insulation
    - Measure baseline conditions including efficiency and configuration (e.g., the type of windows being replaced – single vs. double pane)

- Installed measure equipment efficiency and configuration
- Installed measure equipment model numbers
- Expected savings estimates
- Incentive and measure costs associated with the installed equipment

1.2.2.2 Low Income Programs

The Evaluators offer the following recommendations regarding Avista's Low Income electric programs:

- Within the Low Income Program, the Evaluators recommend prioritizing improvements to tracking data completeness and consistency, particularly for heating type, measure quantities, and measure-specific attributes, and enhancing data collection protocols to align more closely with RTF input requirements, in order to reduce reliance on secondary data sources and conservative assumptions in future impact evaluations.

1.2.2.3 Non Residential Programs

The Evaluators offer the following recommendations regarding Avista's Non Residential electric programs:

- The Evaluators found several instances in which RTF heating zone or household heating fuel included in the tracking data did not match rebate documentation. The Evaluators would recommend Avista regularly review tracking data and compare it to available databases to improve accuracy where possible.
- The Evaluators would suggest Avista include key fields in tracking data across all programs. Certain fields are always used in savings evaluation and without them simplifying assumptions are often required which may reduce the accuracy of savings estimates. The Evaluators appreciate that customers may not completely fill out rebate application forms, which may make tracking data completeness a challenge; however, tracking data should ideally include all the fields detailed above in the Residential Programs recommendations section.
- Particularly for measures related to facility heating and cooling (e.g., HVAC equipment and weatherization), Avista should consider integrating real world weather data into analyses to improve savings accuracy. Weather data can be integrated analyses in a variety of ways, including billing analyses with Heating/Cooling Degree Day controls and engineering equations with weather inputs. Especially given increasingly extreme weather patterns, integrating current weather data into select measure analyses could help identify more accurate savings estimates than deemed values.
- For the **Prescriptive Lighting** Program, Avista should consider applying an in-service rate to expected savings calculations. Particularly with lighting programs, in-service rates can vary from 100%, so it may be worthwhile to account for the fact that not all customers may install the efficient lighting equipment they receive.

- For the **Site Specific** Program, the Evaluators would recommend Avista share expected savings Excel calculators/tools wherever possible to ensure verified savings are calculated based on the most complete information possible. While tracking data and rebate documentation PDFs both provide useful details for verified savings calculations, given the complexity of some custom measures, having access to all ex-ante Excel calculators would be useful for future savings estimation.

2. General Methodology

The Evaluators performed an impact evaluation on each of the programs in Avista's Idaho electric portfolio. The Evaluators used the following approaches to calculate energy impact defined by the International Performance Measurement and Verification Protocols (IPMVP)[1] and the Uniform Methods Project (UMP)[2]:

- Simple verification (web-based surveys)
- Document verification (review project documentation)
- Deemed savings (RTF UES and Avista TRM values)
- Whole facility billing analysis (IPMVP Option C)
- Appropriate IPMVP Option (for Site-Specific, depending on project)

The Evaluators completed the above impact tasks for each the electric impacts and the natural gas impacts for projects completed in the Idaho Avista service territory. For the purposes of this report, only the Idaho Electric impacts are quantified and reported.

The M&V methodologies are program-specific and determined by previous Avista evaluation methodologies as well as the relative contribution of a given program to the overall energy efficiency impacts. Besides drawing on IPMVP, the Evaluators also reviewed relevant information on infrastructure, framework, and guidelines set out for EM&V work in several guidebook documents that have been published over the past several years. These include the following:

- Northwest Regional Technical Forum (RTF)[3]
- National Renewable Energy Laboratory (NREL), United States Department of Energy (DOE) The Uniform Methods Project (UMP): Methods for Determining Energy Efficiency Savings for Specific Measures, April 2013[4]
- International Performance Measurement and Verification Protocol (IPMVP) maintained by the Efficiency Valuation Organization (EVO) with sponsorship by the U.S. Department of Energy (DOE)[5]

The Evaluators kept data collection instruments, calculation spreadsheets, and monitored/survey data available for Avista records.

2.1 Glossary of Terminology

As a first step to detailing the evaluation methodologies, the Evaluators have provided a glossary of terms to follow:

[1] https://www.nrel.gov/docs/fy02osti/31505.pdf
[2] https://www.nrel.gov/docs/fy18osti/70472.pdf
[3] https://rtf.nwcouncil.org/measures
[4] Notably, The Uniform Methods Project (UMP) includes the following chapters authored by Qualus (formerly ADM). Chapter 9 (Metering Cross- Cutting Protocols) was authored by Dan Mort and Chapter 15 (Commercial New Construction Protocol) was Authored by Steven Keates.
[5] Core Concepts: International Measurement and Verification Protocol. EVO 100000 – 1:2016, October 2016.

- **Deemed Savings** – An estimate of an energy savings outcome (gross savings) for a single unit of an installed energy efficiency measure. This estimate (a) has been developed from data sources and analytical methods that are widely accepted for the measure and purpose and (b) are applicable to the situation being evaluated.
- **Expected Savings** – Calculated savings used for program and portfolio planning purposes.
- **Verified Savings** – Savings estimates after the unit-level savings values have been updated and energy impact evaluation has been completed, integrating results from billing analyses and appropriate RTF UES and Avista TRM values.
- **Gross Savings** – The change in energy consumption directly resulting from program-related actions taken by participants in an efficiency program, regardless of why they participated.
- **Free Rider** – A program participant who would have implemented the program measure or practice in absence of the program.
- **Net-To-Gross** – A factor representing net program savings divided by gross program savings that is applied to gross program impacts to convert them into net program load impacts.
- **Net Savings** – The change in energy consumption directly resulting from program-related actions taken by participants in an efficiency program, with adjustments to remove savings due to free ridership.
- **Non-Energy Benefits** – Quantifiable impacts produced by program measures outside of energy savings (comfort, health and safety, reduced alternative fuel, etc.).
- **Non-Energy Impacts** – Quantifiable impacts in energy efficiency beyond the energy savings gained from installing energy efficient measures (reduced cost for operation and maintenance of equipment, reduced environmental and safety costs, etc.).

2.2 Summary of Approach

This section presents our general cross-cutting approach to accomplishing the impact evaluation of Avista's Residential, Low Income, and Non Residential programs. The Evaluators start by presenting our general evaluation approach. This chapter is organized by general task due to substantial overlap across programs.

The Evaluators outline the approach to verifying, measuring, and reporting the residential portfolio impacts as well as cost-effectiveness and summarizing potential program and portfolio improvements. The primary objective of the impact evaluation is to determine ex-post verified net energy savings.

Our general approach for this evaluation considers the cyclical feedback loop among program design, implementation, and impact evaluation. Our activities during the evaluation estimate and verify annual energy savings and identify whether a program is meeting its goals. These activities are aimed to provide guidance for continuous program improvement and increased cost effectiveness for the 2026 program year and onwards.

The Evaluators employed the following approach to complete impact evaluation activities for the programs. The Evaluators define major approaches to determining net savings for Avista's programs:

- A *Deemed Savings* approach involves using stipulated savings for energy conservation measures for which savings values are well-known and documented. These prescriptive savings may also

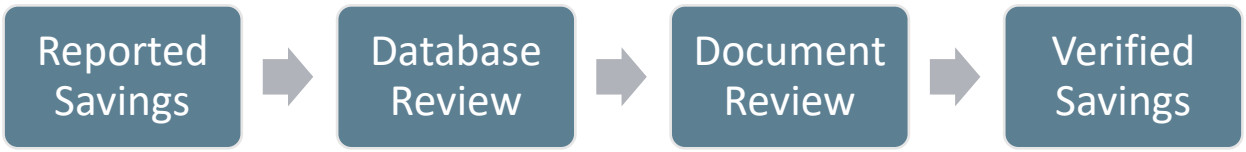
include an adjustment for certain measures, such as lighting measures in which site operating hours may differ from RTF values.

- A *Billing Analysis* approach involves estimating energy savings by applying a linear regression to measured participant energy consumption utility meter billing data. Billing analyses included billing data from nonparticipant customers. This approach does not require on-site data collection for model calibration. This approach aligns with the IPMVP Option C.
- A *Semi-Custom* approach, used for the Prescriptive Lighting and Small Business Lighting program, where savings are quantified by a standard engineering algorithm with key performance parameter(s), such as pre/post wattage, quantity and annual hours of use. This approach aligns with IPMVP Option A.
- A *Custom* approach, used for the Site-Specific program, involves selecting the appropriate IPMVP option to apply to the specific measure or project. Typically, this is Option A as most projects in the program are lighting retrofits, however Options B, C and D may also be employed, depending upon the project. Specific methods are discussed in each site report.

The Evaluators aimed to accomplish the following quantitative goals as part of the impact evaluation:

- Verify savings with 10% precision at the 90% confidence level;
- Where appropriate, apply the RTF to verify measure impacts;
- Where available data exists, conduct billing analysis with a suitable comparison group to estimate measure savings; and
- Use IPMVP analysis methods for custom projects.

The Evaluators calculated verified savings for each measure based on the RTF UES, Avista TRM, or an IPMVP-approved methodology (such as an Option C billing analysis) in combination with the results from document review. For the Appliances, ENERGY STAR Homes, Residential Shell, Green Motors, and Prescriptive Lighting Programs, the Evaluators also applied in-service rates (ISRs) from verification surveys. The following flow chart outlines the process by which the Evaluators progress from reported savings to verified savings.



The Evaluators assigned methodological rigor level for each measure and program based on its contribution to the portfolio savings and availability of data.

2.2.1 Database Review

At the outset of the evaluation, the Evaluators reviewed the databases to ensure that each program tracking database conforms to industry standards and adequately tracks key data required for evaluation.

Measure-level net savings were evaluated primarily by reviewing measure algorithms and values in the tracking system to ensure appropriate, error-free savings estimates were included in the tracking data. The Evaluators then aggregated and cross-checked program and measure totals.

The Evaluators reviewed program application documents for a sample of incented measures to verify the tracking data accurately represents the program documents. The Evaluators ensured the home installed measures that meet or exceed program efficiency standards.

2.2.2 Verification Methodology

In this section, the Evaluators summarize the verification methods used to ensure projects were completed and to the efficiency levels detailed in the program-level tracking data.

2.2.2.1 Sampling Methodology

The Evaluators summarize the methods for each verification effort:

- Sampling methodology for most programs
- Sampling methodology for the Site-Specific Program
- Document-based verification
- Survey-based verification
- On-site visits

2.2.2.2 Sampling Methodology for Most Programs

The Evaluators verified a sample of participating households for detailed review of the installed measure documentation and development of verified savings. The Evaluators verified tracking data by reviewing invoices and surveying a sample of participant customer households. The Evaluators also conducted a verification survey for program participants.

The Evaluators used the following equations to estimate sample size requirements for each program and fuel type. Required sample sizes were estimated as follows:

Equation 2-1: Sample Size for Infinite Sample Size

$$n = \left(\frac{Z \times CV}{d}\right)^2$$

Equation 2-2: Sample Size for Finite Population Size

$$n_0 = \frac{n}{1 + \left(\frac{n}{N}\right)}$$

Where,

- n = Sample size
- Z = Z-value for a two-tailed distribution at the assigned confidence level.
- CV = Coefficient of variation
- d = Precision level

- N = Population

For a sample that provides 90/10 precision, Z = 1.645 (the critical value for 90% confidence) and d = 0.10 (or 10% precision). The remaining parameter is *CV*, or the expected coefficient of variation of measures for which the claimed savings may be accepted. A *CV* of .5 was assumed for residential programs due to the homogeneity of participation[6], which yields a sample size of 68 for an infinite population. Sample sizes were adjusted for smaller populations via the method detailed in Equation 2-2.

2.2.2.3 Sampling Methodology for the Site-Specific Program

For the Site-Specific program, Simple Random Sampling is not an effective sampling methodology as the CV values observed in business programs are typically very high because the distributions of savings are generally positively skewed. Often, a relatively small number of projects account for a high percentage of the estimated savings for the program.

To address this situation, we use a sample design for selecting projects for the M&V sample that considers such skewness. With this approach, we select several sites with large savings for the sample with certainty and take a random sample of the remaining sites. To improve precision, non-certainty sites are selected for the sample through systematic random sampling. That is, a random sample of sites remaining after the certainty sites have been selected is selected by ordering them according to the magnitude of their savings and using systematic random sampling. Sampling systematically from a list that is ordered according to the magnitude of savings ensures that any sample selected will have some units with high savings, some with moderate savings, and some with low savings. Samples cannot result that have concentrations of sites with atypically high savings or atypically low savings. Specific sampling characteristics are shown in the Site-Specific section of this report.

The following sections describe the Evaluator's methodology for conducting document-based verification and survey-based verification.

2.2.2.4 Document-Based Verification

The Evaluators requested rebate documentation for a subset of participating customers. These documents included invoices, rebate applications, pictures, and AHRI certifications for the following programs.

- Appliances Program
- ENERGY STAR® Homes Program
- Home Insulation Program
- Residential Midstream Program
- Residential Shell Program
- Low Income Program

[6] Assumption based off California Evaluation Framework:

https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/EE_and_Energy_Savings_Assist/CAEvaluationFramework.pdf

- Green Motors Program
- Grocer Program
- Non Residential Midstream Program
- Prescriptive Lighting Program
- Small Business Lighting Program
- Non Residential Shell Program
- Site Specific Program

This sample of documents was used to cross-verify tracking data inputs. In the case the Evaluators found any deviations between the tracking data and application values, the Evaluators reported and summarized those differences in the Database Review & Document Verification sections presented for each program.

Meanwhile the Home Energy Audit and Building Operator Certification programs were evaluated based on a comprehensive review of billing data, tracking data from current and previous evaluations, and key whitepapers.

The Evaluators developed a sampling plan that aimed to achieve a sampling precision of ±10% at 90% statistical confidence – or "90/10 precision" – to estimate the percentage of projects for which the claimed savings are verified or require some adjustment. The Evaluators developed the following samples for each program's document review using Equation 2-1 and Equation 2-2. The Evaluators ensured representation in each state and fuel type for each measure.

Table 2-1: Document-based Verification Samples and Precision by Program

Sector	Program	Electric Population	Sample (With Finite Population Adjustment)*	Precision at 90% CI
Residential	Appliances	569	65	90% ± 9.60%
Residential	ENERGY STAR Homes	12	12	90% ± 0.00%
Residential	Fuel Conversion	11	11	90% ± 0.00%
Residential	Home Insulation	8	8	90% ± 0.00%
Residential	Residential Midstream	1,018	577	90% ± 2.25%
Residential	Residential Shell	234	56	90% ± 9.59%
Low Income	Low Income	76	42	90% ± 8.49%
Non Residential	Green Motors	2	2	90% ± 0.00%
Non Residential	Grocer	1	1	90% ± 0.00%
Non Residential	Non Residential Midstream	79	16	90% ± 9.22%
Non Residential	Prescriptive Lighting	471	75	90% ± 8.72%
Non Residential	Small Business Lighting	1,924	97	90% ± 8.06%
Non Residential	Non Residential Shell	1	1	90% ± 0.00%
Non Residential	Site Specific	15	7**	90% ± 6.48%

*Assumes sample size of 68 for an infinite population, based on *CV* (coefficient of variation) = 0.5, *d* (precision) = 10%, *Z* (critical value for 90% confidence) = 1.645.

** The Site-Specific Program sample is distinct from other sampling methodologies presented in this table as it is chosen via a random stratified sample. However, it is included in this table for illustrative and informative purposes.

The table above represents the number of rebates in Idaho service territory only (does not include Idaho rebate samples). The Evaluators ensured representation of state and fuel type in the sampled rebates for document verification.

2.2.2.5 Survey-Based Verification

The Evaluators conducted survey-based verification for the Appliances program, Residential Shell program, and the Prescriptive Lighting program in PY2025. The primary purpose of conducting a verification survey is to confirm that the measure was installed and is still currently operational and whether the measure was early retirement or replace-on-burnout.

The Evaluators summarize the final sample sizes shown in Table 2-2 for the Residential Appliance and Non Residential Lighting Programs. The Evaluators developed a sampling plan that achieved a sampling precision of ±4.62% at 90% statistical confidence for residential ISRs estimates at the program-level during web-based survey verification. The Evaluators developed a sampling plan that achieved a sampling precision of ±7.94% at 90% statistical confidence for non-residential ISRs estimates at the program-level during web-based survey verification.

Table 2-2: Survey-Based Verification Sample and Precision by Program

Sector	Program	Population	Respondents	Precision at 90% CI
Residential	Appliances	2,911	160	90% ± 6.32%
Residential	Shell	6,115	146	90% ± 6.73%
Non Residential	Prescriptive Lighting	1,269	99	90% ± 7.94%

The Evaluators implemented a web-based survey to complete the verification surveys. The Evaluators contacted all customers in the programs listed in the table above with the goal of reaching 90/10 precision. For all programs in which in-service rates were not identified via survey-based verification, the Evaluators assumed in-service rates of 100%.

The findings from these activities served to estimate ISRs for each measure surveyed. These ISRs were applied in the calculation of verified savings values.

2.2.2.6 On-Site Visits

For the 2025 evaluation, the Evaluators did not conduct any on-site visits as available tracking data and rebate documentation contained all required data for verification.

2.2.3 Impact Evaluation Methodology

The Evaluators employed the following approach to complete impact evaluation activities for all programs except Site Specific. The Evaluators define two major approaches to determining net savings for Avista's programs:

- Deemed Savings
- Partial Retrofit Isolation Engineering Equation (IPMVP Option A)
- Billing Analysis (IPMVP Option C)

In contrast, the Site-Specific program also employed various IPMVP options, based on available data and the energy efficiency measures being installed. This approach is discussed separately in the Site Specific Program section as it differs in approach from the approaches used in the remainder of the portfolio. In the following sections, the Evaluators summarize the general guidelines and activities followed to conduct the deemed savings and billing analysis approaches.

2.2.3.1 Deemed Savings

This section summarizes the deemed savings analysis method the Evaluators employed for the evaluation of a subset of measures for each program. The Evaluators completed the validation for specific measures across each program using the RTF unit energy savings (UES) values, where available. The Evaluators ensured the proper measure unit savings, were recorded and used in the calculation of Avista's ex-ante measure savings. Per RTF UES workbook guidelines, the Evaluators differentiated savings based on customer heating/cooling zone and other key measure/household data like equipment efficiency and heating fuel type, where appropriate and available.

The Evaluators requested and used the technical reference manual Avista employed during calculation of ex-ante measure savings (Avista TRM) for limited measures where an appropriate RTF UES measure workbook (or other valid methodology) was not available. Of note, based on extensive discussions with Avista and its Midstream program implementer, Avista TRM values were used to verify both Residential and Non Residential Midstream measures. These midstream measure Avista TRM savings values were thoroughly vetted by the Evaluators across 2024 and 2025.

In cases where the RTF has existing unit energy savings (UES) applicable to Avista's measures, the Evaluators verified the quantity and quality of installations and applied the RTF's UES to determine verified savings.

2.2.3.2 Partial Retrofit Isolation Engineering Equation

For select measures where an RTF UES measure workbook was not available, the Evaluators employed simple engineering equations to identify measures savings. This methodology is consistent with IPMVP Option A partial retrofit isolation. Valid engineering equations were identified using reputable sources such as the Illinois TRM version 12.[7] Wherever possible, Pacific Northwest-specific inputs were used in these engineering equations to ensure verified savings estimates were regionally relevant.

2.2.3.3 Billing Analysis

This section describes the billing analysis methodology employed by the Evaluators as part of impact evaluation activities. In most cases, the Evaluators performed billing analyses with a matched control group, utilizing a quasi-experimental method of producing a post-hoc control group. In program designs where treatment and control customers are not randomly selected at the outset, such as for downstream rebate programs, quasi-experimental designs are necessary to produce a matched control

[7] https://www.ilsag.info/wp-content/uploads/IL-TRM-Version-12.0-Volumes-1-4-Compiled-Final.pdf

cohort. Where a valid matched control group could not be developed, the Evaluators employed a treatment-only regression analysis.

For the purposes of this analysis, a household is considered a treatment household if it has participated in an energy efficiency program. Meanwhile, a household is considered a control household if the household has not participated in an energy efficiency program during the relevant analysis period. To isolate measure impacts, treatment households are eligible to be included in the billing analysis if they installed only one measure during the 2025 program year. Isolation of individual measures is necessary to provide valid measure-level savings. Households that installed more than one measure may display interactive energy savings effects across multiple measures that are not feasible to identify. Therefore, instances where households installed isolated single measures were used in the billing analyses.

Before delving further into the specifics of the Evaluators' billing analysis methodology, it is important to clarify a few key definitions. In the context of a billing analysis, the pre-period identifies the period prior to measure installation while the post-period refers to the period following measure installation. In the regressions run by the Evaluators the pre-period and the post-period were both 12 months meaning the overall analysis period was 24 months.

The Evaluators utilized propensity score matching (PSM) to match nonparticipants to similar participants using pre-period billing data. PSM allows the evaluators to find the most similar household based on the customers' billed consumption trends in the pre-period as well as other variables like 3-digit zip code. Similarity between treatment customers and matched controls can be verified via statistical difference testing. After developing a matched cohort via PSM, the billing data for treatment and control groups are compared, as detailed in IPMVP Option C. The Evaluators fit regression models to estimate weather-dependent daily consumption differences between participating customer and nonparticipating customer households.

Cohort Creation

The PSM approach estimates a propensity score for treatment and control customers using a logistic regression model. A propensity score is a metric that summarizes several dimensions of household characteristics into a single metric that can be used to group similar households. The Evaluators created a post-hoc control group by compiling billing data from a subset of nonparticipants in the Avista territory to compare against treatment households using quasi-experimental methods. This allowed the Evaluators to select from a large group of similar households that have not installed an incented measure. With this information, the Evaluators created statistically comparable matched control groups for each measure via seasonal pre-period usage. The Evaluators matched customers in the control group to customers in the treatment group based on nearest seasonal pre-period usage (e.g., summer, spring, fall, and winter) and exact 3-digit zip code matching (the first three digits of the five-digit zip code). After matching, the Evaluators conducted a *t*-test for each month in the pre-period to help determine the success of PSM.

While it is not possible to guarantee the creation of a perfectly matched control group, the inclusion of a control group via PSM allows billing analyses to control for external factors that might affect energy usage. Some examples of external factors that might impact energy usage include changes in the

economy (e.g., a recession), large-scale societal changes (e.g., a pandemic), or major weather-related anomalies such as flooding or hurricanes. If such external factors are not present, then a treatment-only regression analysis can also be a valid methodology to determine measure-level savings.

After PSM, the Evaluators ran the following regression models for each measure included in the billing analysis:

- Fixed effect Difference-in-Difference (D-n-D) regression model (recommended in UMP protocols)[8]
- Random effects post-program regression model (PPR) (recommended in UMP protocols)
- Gross billing analysis (treatment only)

After running these regressions, the Evaluators determined the most appropriate model base on a review of key metrics such as model fit (per adjusted R-squared), model significance (i.e., a p-value ≤ 0.05), and average savings values. Further details on regression model specifications can be found below.

Data Collected

The following lists the data collected for the billing analysis:

1. Monthly billing data for program participants (treatment customers)
2. Monthly billing data for a group of non-program participants (control customers)
3. Program tracking data, including customer identifiers, address, and date of measure installation
4. National Oceanic and Atmospheric Administration (NOAA) weather data between January 1, 2024 and December 31, 2025)
5. Typical Meteorological Year (TMY3) data

Billing and weather data were obtained for program year 2025 and for one year prior to measure install dates (2024).

Weather data was obtained from the nearest weather station with complete data during the analysis years for each customer by mapping the weather station location with the customer zip code.

TMY weather stations were assigned to NOAA weather stations by geocoding the minimum distance between each set of latitude and longitude points. This data is used for extrapolating savings to long-run, 30-year average weather.

Data Preparation

The following steps were taken to prepare the billing data:

1. Gathered billing data for homes that participated in a given program and installed a given measure.
2. Excluded participant homes that also participated in other programs or installed other energy efficiency measures.

[8] National Renewable Energy Laboratory (NREL) Uniform Methods Project (UMP) Chapter 17 Section 4.4.7.

3. Gathered billing data for similar customers that did not participate any energy efficiency programs.
4. Excluded bills missing address information, if any were identified.
5. Removed bills missing fuel type/Unit of Measure (UOM) information, if any were identified.
6. Removed bills missing usage, billing start date, or billing end date, if any were identified.
7. Remove bills with outlier durations (<9 days or >60 days) , if any were identified.
8. Excluded bills with consumption indicated to be outliers, if any were identified.
9. Remove duplicate bills and any bills with overlapping billing periods. If two billing periods overlapped, the bill with a start date that matched the previous bill's end date was included and the other bill was excluded. For example, if overlapping bill 1 had a 02/19/2025 start date, overlapping bill 2 had a 02/25/2025 start date, and the previous bill had a 02/19/2025 end date, overlapping bill 2 would be removed. If there was no previous bill, the overlapping bill with the earlier start date was included and the other overlapping bill was removed.
10. Calendarized bills (this involves recalculating billing dates, usage, and total billed days such that bills begin and end at the start and end of each month).
11. Obtained weather data from the nearest NOAA weather station using 5-digit zip code per household.
12. Computed Heating Degree Days (HDD) and Cooling Degree Days (CDD) for a range of setpoints. For this analysis the Evaluators assigned a setpoint of 65°F for both HDD and CDD.
13. Removed measure cohorts without at least 75 treatment customers.
14. Selected treatment customers with only one measure installed during the analysis period and added measure install dates to the billing data dataset (to define pre- and post-periods).
15. Removed customers with incomplete post-period billing data (<6 months).
16. Removed customers with incomplete pre-period billing data (<10 months).
17. Restricted control customers to those with usage that was comparable with the treatment group usage.
18. Created a matched control group using PSM and matching on pre-period seasonal usage and zip code.

Regression Models

The Evaluators ran the following models for matched treatment and control customers for each measure with sufficient participation. In most cases, the Evaluators selected either Model 1 or Model 2 to identify verified net savings. However, the Evaluators also considered Model 3 since treatment-only regression analyses can also provide valid savings estimates, especially if major external factors (e.g., a pandemic) are unlikely to affect broader trends of customer energy usage (as is the case in Idaho across 2024 and 2025).

Model 1: Fixed Effects Difference-in-Difference Regression Model

The following equation displays the first model specification used to estimate the average daily savings associated with each energy efficiency measure included in the billing analysis.

Equation 2-3: Fixed Effects Difference-in-Difference (D-n-D) Model Specification

$$ADC_{it} = \alpha_0 + \beta_1(Post)_{it} + \beta_2(Post \times Treatment)_{it} + \beta_3(HDD)_{it} + \beta_4(CDD)_{it} + \beta_5(Post \times HDD)_{it} + \beta_6(Post \times CDD)_{it} + \beta_7(Post \times HDD \times Treatment)_{it} + \beta_8(Post \times CDD \times Treatment)_{it} + \beta_9(Month)_t + \beta_{10}(Customer\ Dummy)_i + \varepsilon_{it}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage reading *t* for household *i* during the post-treatment period
- $Post_{it}$ = A dummy variable indicating pre- or post-period designation during period *t* at home *i*
- $Treatment_i$ = A dummy variable indicating treatment status of home *i*
- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*
- $Month_t$= A set of dummy variables indicating the month during period *t*
- $Customer\ Dummy_i$ = a customer-specific dummy variable isolating individual household effects
- ε_{it} = The error term
- α_0= The model intercept
- β_{1-10} = Coefficients determined via regression

The Average Daily Consumption (ADC) is calculated as the total monthly billed usage divided by the duration of the bill month. β_2 represents the average change in daily usage in the post-period between the treatment and control group and β_7 and β_8 represent the change in weather-related daily consumption in the post-period between the groups. Typical monthly and annual savings were estimated by extrapolating the β_7 and β_8 coefficients with Typical Meteorological Year (TMY) HDD and CDD data. However, in the case of gas usage, only the coefficient for HDD is utilized because CDDs were not included in the regression model.

The equation below displays how savings were extrapolated for a full year utilizing the coefficients in the regression model and TMY data. TMY data is weighted by the number of households assigned to each weather station.

Equation 2-4: Savings Extrapolation

$$Annual\ Savings = \beta_2 * 365.25 + \beta_7 * TMY\ HDD + \beta_8 * TMY\ CDD$$

Model 2: Random Effects Post-Program Regression Model

The following equation displays the second model specification to estimate the average daily savings due to the measure. The post-program regression (PPR) model combines both cross-sectional and time series data in a panel dataset. This model uses only the post-program data, with lagged energy use for the same calendar month of the pre-program period acting as a control for any small systematic differences between the treatment and control customers; in particular, energy use in calendar month *t* of the post-program period is framed as a function of both the participant variable and energy use in the same calendar month of the pre-program period. The underlying logic is that systematic differences between treatment and control customers will be reflected in the differences in their past energy use, which is highly correlated with their current energy use. These interaction terms allow pre-program usage to have a different effect on post-program usage in each calendar month. The model specification is as follows:

Equation 2-5: Post-Program Regression (PPR) Model Specification

$$\begin{aligned} ADC_{it} = \alpha_0 &+ \beta_1(Treatment)_i + \beta_2\,(PreUsageSpring)_i + \beta_3(PreUsageSummer)_i \\ &+ \beta_4(PreUsageFall)_i + \beta_5(PreUsageWinter)_i + \beta_6(Month)_t \\ &+ \beta_7(Month \times PreUsageSpring)_{it} + \beta_8(Month \times PreUsageSummer_{)it} \\ &+ \beta_9(Month \times PreUsageFall)_{it} + \beta_{10}(Month \times PreUsageWinter)_{it} + \beta_{11}(HDD)_{it} \\ &+ \beta_{12}(CDD)_{it} + \beta_{13}(Treatment \times HDD)_{it} + \beta_{14}(Treatment \times CDD)_{it} + \varepsilon_{it} \end{aligned}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage for reading *t* for household *i* during the post-treatment period
- $Treatment_i$ = A dummy variable indicating treatment status of home *i*
- $Month_t$ = Dummy variable indicating month of month *t*
- $PreUsageSpring_i$ = Average daily usage in the spring months across household *i*'s available pre-treatment billing reads
- $PreUsageSummer_i$ = Average daily usage in the summer months across household *i*'s available pretreatment billing reads
- $PreUsageFall_i$ = Average daily usage in the fall months across household *i*'s available pretreatment billing reads
- $PreUsageWinter_i$ = Average daily usage in the winter months across household *i*'s available pre-treatment billing reads
- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*
- ε_{it} = Customer-level random error
- α_0= The model intercept for home *i*
- β_{1-14} = Coefficients determined via regression

The coefficient β_1 represents the average change in consumption between the pre-period and post-period for the treatment group and β_{13} and β_{14} represent the change in weather-related daily consumption in the post-period between the groups. Typical monthly and annual savings were estimated by extrapolating the β_{13} and β_{14} coefficients with Typical Meteorological Year (TMY) HDD and CDD data.

The equation below displays how savings were extrapolated for a full year utilizing the coefficients in the regression model and TMY data.

Equation 2-6: Savings Extrapolation

$$Annual\ Savings = \beta_1 * 365.25 + \beta_{13} * TMY\ HDD + \beta_{14} * TMY\ CDD$$

Model 3: Gross Billing Analysis, Treatment-Only Regression Model

The sections above detail the Evaluator's methodology for estimating net energy savings for each measure. The results from the above methodology report net savings due to the inclusion of the counterfactual comparison group. However, treatment-only regression analyses (i.e., those not including a counterfactual comparison group) can also be an extremely useful tool for estimating energy savings. One advantage of a treatment-only regression is it does not rely on quasi-experimental methods (i.e., PSM) to develop a control cohort. Depending on available non-participant billing data, it can be difficult to develop a valid matched control cohort. Especially if sufficient non-participant data is not available to develop an appropriate control group, gross savings calculated via a treatment-only regression can provide valid measure-level energy savings estimates. A treatment-only regression analysis does not include control group billing data, instead it focuses exclusively on the differences in energy usage between the pre-period and post-period for program participants.

To calculate the impacts of each measure, the Evaluators applied linear fixed effects regression using participant billing data with weather controls in the form of Heating Degree Days (HDD) and Cooling Degree Days (CDD). The following equation displays the model specification to estimate the average daily savings due to the measure.

Equation 2-7: Treatment-Only Fixed Effects Weather Model Specification

$$ADC_{it} = \alpha_0 + \beta_1(Post)_{it} + \beta_2(HDD)_{it} + \beta_3(CDD)_{it} + \beta_4(Post \times HDD)_{it} + \beta_5(Post \times CDD)_{it} + \beta_6(Customer\ Dummy)_i + \beta_7(Month)_t + \varepsilon_{it}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage for reading *t* for household *i* during the post-treatment period
- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*

- $Post_{it}$ = A dummy variable indicating pre- or post-period designation during period *t* at home *i*
- $Customer\ Dummy_i$ = a customer-specific dummy variable isolating individual household effects
- ε_{it} = Customer-level random error
- α_0= The model intercept for home *i*
- β_{1-7} = Coefficients determined via regression

The results of the treatment-only regression models are gross savings estimates. If billing data for statistically comparable control customers (i.e., non-participant Avista customers with comparable usage to treatment customers) is not available, such gross savings analyses can provide reliable savings estimates. While treatment-only models may not separate out the effects of national or regional events like a pandemic or recession, they still provide meaningful estimates of changes in energy usage associated with measure installation.

2.2.4 Net-To-Gross

The Pacific Northwest RTF UES measures do not require Net-To-Gross (NTG) adjustments as they are built into the deemed savings estimates. In addition, billing analyses with counterfactual control groups, as proposed in our impact methodology, do not require a NTG adjustment, as the counterfactual represents the efficiency level at the current market (i.e. the efficiency level the customer would have installed had they not participated in the program).

3. Residential Impact Evaluation Results

The Evaluators completed an impact evaluation on Avista's Residential portfolio to verify program-level and measure-level energy savings for PY2025. The following sections summarize electric impact evaluation findings for the Idaho service territory. The Evaluators used data collected and reported in the tracking database, online application forms, Avista TRM, RTF, and billing analysis of participants and nonparticipants to evaluate savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 3-1 summarizes the residential verified impact savings by program.

Table 3-1: Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Appliances	569	106,215.00	26,381.67	24.84%
ENERGY STAR Homes	12	39,487.00	44,242.97	112.04%
Fuel Conversion	11	90,844.00	82,405.74	90.71%
Home Energy Audit	108	0.00	86,914.01	NA
Home Insulation Program	8	11,327.14	11,436.27	100.96%
Residential Midstream	1,147	2,231,462.71	2,234,476.95	100.14%
Residential Shell	234	207,488.24	149,624.12	72.11%
Residential Total	**2,089**	**2,686,824.08**	**2,635,481.73**	**98.09%**

The following table presents residential incentive and measures costs by program. As outlined in the following program-specific sections, in some cases tracking data did not include complete measure cost information and if that was the case, the Evaluators assumed measure costs were identical to electric incentive costs. For the Home Energy Report program, no cost information was included in the tracking data and as such incentive and measure costs were assumed to be $0.00.

Table 3-2: Residential Costs by Program

Program	Incentive Costs	Measure Costs
Appliances	$45,552.70	$770,106.08
ENERGY STAR Homes	$12,000.00	$789,265.10
Fuel Conversion	$26,100.00	$146,085.27
Home Energy Audit	$0.00	$0.00
Home Insulation Program	$8,754.00	$31,828.78
Residential Midstream	$560,250.00	$560,250.00
Residential Shell	$239,104.50	$2,450,166.09
Residential Total	**$891,761.20**	**$4,747,701.32**

3.1 Simple Verification Results

The Evaluators surveyed customers participating in Avista's PY2025 Appliances and Residential Shell program and received sufficient responses to hit 90/10 precision. Details on program populations and survey responses can be found in the Survey-Based Verification section above. Results and findings from these surveys and other process evaluation activities can be found in the Evaluators' separate process report. For the purposes of this impact report, the key finding from this survey-based verification activity is the identification of in-service rates.

3.1.1 In-Service Rates

The Evaluators calculated in-service rates (ISRs) of installed measures from simple verification surveys deployed to program participants in the Appliances and Residential Shell programs. The Evaluators asked participants if the rebated equipment is currently installed and working. Measure-specific in-service rates for the Idaho service territory can be found in the following table. The Evaluators assumed an in-service rate of 100% for any measures not included in the following table.

Table 3-3: Residential ISRs by Measure

Program	Measure	Respondents	ISR	ISR Methodology
Appliances	ENERGY STAR Clothes Washer	15	100%	Verification survey
	ENERGY STAR Clothes Dryer	17	100%	Verification survey
	ENERGY STAR Freezer/Refrigerator	34	100%	Verification survey
Shell	Glass Door	20	100%	Verification survey
	Insulated Door	7	100%	Verification survey
	Windows	59	100%	Verification survey

These ISR values were utilized in the desk reviews for each of the measures listed above in order to calculate verified savings. Additional insights from survey responses are included in a separate process analysis report.

3.2 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Residential sector in the section below.

3.2.1 Appliances Program

The Appliances Program is a residential prescriptive program that offers incentives for customers to upgrade their existing clothes washers/dryers, refrigerators/freezers, and smart thermostats to ENERGY STAR-rated products. Primary multifamily homes with shared interior walls including apartments, duplexes, townhomes, and condos have no minimum usage requirement. Seasonal and recreational homes are not eligible.

This section summarizes the impact results of the evaluation results for the Appliances Program. Table 3-4 summarizes the measures offered under this program.

Table 3-4: Appliances Program Measures

Measure	Description	Impact Analysis Methodology
E Energy Star Certified Refrigerator and Refrigerator-Freeze	ENERGY STAR-certified refrigerator or refrigerator with freezer for residential homes	Billing Analysis
E Energy Star Certified Upright Freezer	ENERGY STAR-certified standard or compact freezers for residential homes	RTF UES
E Energy Star Rated Clothes Dryer	ENERGY STAR-certified clothes dryer for residential homes	RTF UES
E Energy Star Rated Front Load Washer	ENERGY STAR-certified front-loading clothes washer for residential homes	RTF UES
E Smart Thermostat DIY with Electric Heat	ENERGY STAR-certified Smart Thermostat with DIY install for residential homes	RTF UES
E Smart Thermostat Paid Install with Electric Heat	ENERGY STAR-certified Smart Thermostat with Paid Install for residential homes	RTF UES
Multifamily E Energy Star Certified Refrigerator and Refrigerator-Freeze	ENERGY STAR-certified refrigerator or refrigerator with freezer for residential homes	RTF UES
Multifamily E Energy Star Certified Upright Freezer	ENERGY STAR-certified standard or compact freezers for residential homes	RTF UES
Multifamily E Energy Star Rated Clothes Dryer	ENERGY STAR-certified clothes dryer for residential homes	RTF UES
Multifamily E Energy Star Rated Front Load Washer	ENERGY STAR-certified front-loading clothes washer for residential homes	RTF UES
Multifamily E Smart Thermostat Paid Install with Electric Heat	ENERGY STAR-certified Smart Thermostat with Paid Install for residential homes	RTF UES

The following table summarizes the verified electric energy savings for the Appliances Program impact evaluation.

Table 3-5: Appliances Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Energy Star Certified Refrigerator and Refrigerator-Freeze	288	35,836.00	2,385.41	6.66%
E Energy Star Certified Upright Freezer	32	2,278.00	881.05	38.68%
E Energy Star Rated Clothes Dryer	120	35,453.00	6,357.51	17.93%
E Energy Star Rated Front Load Washer	85	10,320.00	12,595.80	122.05%
E Smart Thermostat DIY with Electric Heat	21	16,478.00	3,157.72	19.16%
E Smart Thermostat Paid Install with Electric Heat	4	2,996.00	733.62	24.49%
Multifamily E Energy Star Certified Refrigerator and Refrigerator-Freeze	16	1,984.00	112.92	5.69%
Multifamily E Energy Star Rated Clothes Dryer	3	870.00	157.62	18.12%
Total	**569**	**106,215.00**	**26,381.67**	**24.84%**

The Appliances Program displayed verified savings of 26,381.67 kWh with a realization rate of 24.84% against the expected savings for the program. The following table summarizes the incentive and measure costs associated with the program.

Table 3-6: Appliances Program Costs by Measure

Measure	Incentive Costs	Measure Costs
E Energy Star Certified Refrigerator and Refrigerator-Freeze	$28,800.00	$509,731.15
E Energy Star Certified Upright Freezer	$1,700.00	$37,311.95
E Energy Star Rated Clothes Dryer	$6,050.00	$112,122.90
E Energy Star Rated Front Load Washer	$4,300.00	$84,240.87
E Smart Thermostat DIY with Electric Heat	$2,352.70	$2,988.83
E Smart Thermostat Paid Install with Electric Heat	$600.00	$1,273.09
Multifamily E Energy Star Certified Refrigerator and Refrigerator-Freeze	$1,600.00	$20,062.33
Multifamily E Energy Star Rated Clothes Dryer	$150.00	$2,374.96
Total	**$45,552.70**	**$770,106.08**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for Appliances Program in the section below.

3.2.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Appliance Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The rebate application form aims to collect all required RTF measure specification details. The Evaluators were able to verify the models for RTF specifications for most projects. One sampled electric project did not include rebate data. Additionally, although model number is a required input, four sampled projects did not include this information in the rebate application and therefore did not qualify for measure savings. Lastly, one sampled project included a model that does not qualify for measure savings in accordance with the RTF. In total, six sampled projects with claimed electric savings did not meet the minimum requirements to qualify for RTF savings.

3.2.1.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Appliances Program. The Evaluators calculated verified savings for the electric measures using the RTF workbook in place at the time the savings goals for the program were finalized. The Evaluators also conducted a billing analysis for all measures with enough participation. The billing analyses did not yield statistically significant savings for the Idaho population meaning the Evaluators employed RTF UES deemed savings values to calculate verified savings.

As discussed above, six sampled electric projects did not meet the minimum requirements to qualify for RTF savings due to model disqualification, missing model numbers in the rebate form, or missing rebate data entirely. Five out of these six projects were for refrigerator/refrigerator-freezers, contributing to low realization rates for that measure.

Verified savings resulted in a realization rate less than 100% largely due to low savings attributed to refrigerator, freezer, clothes dryer, and smart thermostat measures. The RTF utilizes more inputs than the Avista TRM to estimate deemed savings, including home characteristics like heat zone, heat type, water heat type, and efficiency tiers for dryers, refrigerators, and freezers. After accounting for these inputs, the magnitude of energy savings estimated by the TRM is only realized if the measure qualifies for the RTF's highest tier of savings. Most sampled projects do not meet that highest tier and are instead assigned significantly lower savings, particularly for electric appliances. For example, dryers must be qualified according to the Northwestern Energy Efficiency Alliance (NEEA), while refrigerators and freezers must be certified by Energy Star as Energy Star Most Efficient. Among 52 sampled projects, only one met this highest efficiency level leading to realization rates of 6.66%, 38.68%, and 17.93% for refrigerators, upright freezers, and electric dryers, respectively (single-family homes).

Electric smart thermostats, meanwhile, are estimated to save 749 kWh according to the TRM, whereas the RTF estimates savings far less than 400 kWh unless the home is heated by an air source heat pump with resistance optimization set up during installation. Furthermore, two of the five sampled thermostats did not qualify for savings per RTF requirements, further reducing the total verified savings for the measure.

Interestingly, electric front load washer measures displayed realization rates above 100%. The Evaluators note that the RTF applies specific savings depending on the customer's home heat type and hot water heat type, and including those inputs in the Avista TRM could realize higher savings for the remaining electric appliance measures than as currently evaluated.

3.2.2 ENERGY STAR® Homes Program

The ENERGY STAR® Homes Program provides rebates for manufactured homes within Avista's service territory that attain an ENERGY STAR® certification. This program incentivizes ENERGY STAR® Eco-rated homes. Table 3-7 summarizes the measures offered under this program.

Table 3-7: ENERGY STAR® Homes Program Measures

Measure	Description	Impact Analysis Methodology
G ENERGY STAR Home - Manufactured, Gas Only	ENERGY STAR-rated manufactured home with natural gas	RTF UES
E ENERGY STAR Home - Manufactured, Electric Only	ENERGY STAR-rated manufactured home with electric furnace	RTF UES
E ENERGY STAR Home - Manufactured, Gas & Electric	ENERGY STAR-rated manufactured home with gas and electric	RTF UES

The following table summarizes the verified electric energy savings for the ENERGY STAR® Homes Program impact evaluation.

Table 3-8: ENERGY STAR® Homes Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Energy Star Home - Manufactured, Electric Only	11	36,465.00	40,421.98	110.85%
E Energy Star Home - Manufactured, Gas & Electric	1	3,022.00	3,820.98	126.44%
Total	**12**	**39,487.00**	**44,242.97**	**112.04%**

The ENERGY STAR® Homes Program displayed verified savings of 44,242.97 kWh with a realization rate of 112.04% against the expected savings for the program. The following table summarizes the incentive and measure costs associated with the program.

Table 3-9: ENERGY STAR® Homes Program Costs by Measure

Measure	Incentive Costs	Measure Costs
E Energy Star Home - Manufactured, Gas & Electric	$11,000.00	$774,265.10
E Energy Star Home - Manufactured, Electric Only	$1,000.00	$15,000.00
Total	**$12,000.00**	**$789,265.10**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the ENERGY STAR® Homes Program in the section below.

3.2.2.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the ENERGY STAR® Homes Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The Evaluators found no duplicate rebates in the project data and therefore did not remove any rebates from verified savings. The Evaluators found all Energy Star Home Program rebates to have sufficient project documentation with the associated NEEM Certification.

3.2.2.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the ENERGY STAR® Homes Program. The Evaluators calculated verified savings for the electric measures using the RTF workbook in place at the time the savings goals for the program were finalized. These RTF UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment. In addition, the Evaluators reviewed and applied the current RTF UES values for each measure along with verified tracking data to estimate net program savings.

The ENERGY STAR® Homes Program in total displays a realization rate of 112.04% with 44,242.97 kWh verified electric energy savings in the Idaho service territory, as displayed in Table 3-8. The realization rate for the electric savings in the ENERGY STAR® Homes Program deviates from 100% primarily due discrepancies between Avista's TRM and the RTF with respect to energy savings associated with ENERGY STAR® manufactured homes. As of PY2025, many manufactured homes were purchased in the RTF's Heating Zone 3 which has higher deemed savings than Heating Zone 1 or Heating Zone 2. Ultimately, categorical differences between the applied Avista TRM prescriptive savings value and the more detailed RTF UES categories also caused realization rates to be slightly higher than 100%.

The realization rate for the E ENERGY STAR® Home – Manufactured, Gas & Electric measure is higher than the expected savings due to the fact that rebate documentation indicated the manufactured home had electric space and water heating. As such, savings were calculated for this manufactured home based on the RTF's electric ENERGY STAR® deemed savings value which yielded a 126.44% electric realization rate for this measure.

3.2.3 Fuel Conversion Program

Avista's Residential Fuel Conversion Program encourages customers to consider converting their resistive electric space and water heating equipment to natural gas. This program is offered to residential customers in the Idaho service territory. Customers must use Avista electricity for electric straight-resistance heating or water heating in order to qualify for the rebate, which is verified by evaluating their energy use. The home's electric baseboard or furnace heat consumption must have been at least 4,000 kWh during the prior year with less than 340 therms of natural gas use. Customers receive incentives after installation and after submitting a completed rebate form. As detailed in the following table, the Evaluators reference the Avista TRM to calculate the verified savings associated with this program.

Table 3-10: Fuel Conversion Program Measures

Measure	Description	Impact Analysis Methodology
E Electric to Natural Gas Furnace	Electric baseboard or forced air furnace heat to natural gas forced air furnace	Avista TRM
E Electric to Natural Gas Furnace & Water Heat	Electric to natural gas furnace and water heat combo	Avista TRM

The following table summarizes the electric energy savings associated with this program. Of note, the reduction in energy usage is somewhat offset by an increase in gas consumption, as detailed in the Evaluators' Idaho Gas Portfolio Impact Evaluation Report.

Table 3-11: Fuel Conversion Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Electric to Natural Gas Furnace	7	51,688.00	51,688.00	100.00%
E Electric to Natural Gas Furnace & Water Heat	4	39,156.00	30,717.74	78.45%
Total	**11**	**90,844.00**	**82,405.74**	**90.71%**

The Fuel Conversion program displayed verified savings of 82,405.74 kWh for a realization rate of 90.71%. The following table summarizes the incentive and measure costs associated with the program.

Table 3-12: Fuel Conversion Program Costs by Measure

Measure	Incentive Costs	Measure Costs
E Electric to Natural Gas Furnace	$14,700.00	$94,182.27
E Electric to Natural Gas Furnace & Water Heat	$11,400.00	$51,903.00
Total	**$26,100.00**	**$146,085.27**

The Evaluators describe the impact evaluation tasks completed for this program in the subsections below.

3.2.3.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Fuel Conversion Program. The Evaluators sampled a subset of rebates included in the tracking data to cross-verify key inputs, as summarized in Section 2.2.2.4.

The Evaluators found that all 11 sampled rebates accurately documented the information necessary to characterize savings for the program within the Idaho electric service territory. The Evaluators verified the installed gas equipment and other inputs necessary to calculate verified savings. The Evaluators' tracking data review did not identify any duplicates in the tracking data.

3.2.3.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Fuel Conversion Program. The Evaluators referenced the Avista TRM, as detailed above, to calculate verified savings associated with this program. With a realization rate of 90.71%, verified electric savings matched expected savings relatively closely. However, the Evaluators found that two of the four water heaters included in the "E Electric to Natural Gas Furnace & Water Heat" measure did not meet efficiency requirements, which contributed to the 78.45% realization rate for that measure. These two water heaters had a uniform energy factor (UEF) of 0.64 for installed storage water heaters. Outside of this discrepancy all other sampled measures yielded a 100% realization rate.

3.2.4 Home Energy Audit Program

The Residential Home Energy Audit Program is designed to educate and generate interest in energy efficiency and to motivate participation in Avista's portfolio of residential energy efficiency and renewable-energy programs. As a part of this program, participating customers can conduct a DIY home energy audit using a small thermal camera or a third-party contractor can visit and visually inspect the customer's entire home to identify opportunities for energy savings. The Evaluators completed a billing analysis of the census of participants to identify the educational impact of the program on customers' energy usage behaviors while removing savings claimed and verified from other program participation. The following table summarizes the verified electric energy savings for the Home Energy Audit Program impact evaluation.

Table 3-13: Home Energy Audit Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Home Energy Audit	108	NA	86,914.01	NA
Total	**108**	**NA**	**86,914.01**	**NA**

The Home Energy Audit Program displayed verified savings of 86,914.01 kWh across 108 electric heating participating households. Avista did not estimate claimed savings for this program, and therefore no realization rate was calculated. No cost information associated with the Home Energy Audit program was provided in the tracking data shared with the Evaluators.

The Evaluators summarize the program-specific impact analysis activities, results, conclusions, and recommendations for the Home Energy Audit Program in the section below.

3.2.4.1 Database Review & Document Verification

Before conducting the billing analysis, the Evaluators conducted a database review for the Home Energy Audit Program. The Evaluators reviewed the Home Energy Audit Program tracking data in PY2025 and identified participating customers with electric heating in the Idaho service territory. The Evaluators did not identify any duplicate customers in the ID population tracking data.

3.2.4.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Home Energy Audit Program. The Evaluators employed the following impact evaluation methodology to estimate verified net energy savings in the Residential Home Energy Audit Program:

- Billing Analysis with counterfactual group (IPMVP Option C)

In addition to motivating behavioral changes, the Home Energy Audit program can also provide direct install measures to participating customers through Avista's residential energy efficiency programs. To ensure these savings were not double counted, the Evaluators removed all customers participating in other energy efficiency programs from the Home Energy Audit billing analysis cohort. After removing these customers with potential for double counted savings from the analysis cohort, the Evaluators conducted a billing analysis with a counterfactual group selected via propensity score matching. The

methodology used to select the quasi-experimental counterfactual group and the methodology for linear regression billing analysis are summarized in further detail in Section 2.2.3.3: Billing Analysis.

Table 3-14: Home Energy Audit Program Billing Analysis Results

Treatment Customers	Treatment Customers Included in Billing Analysis	Estimated Annual Savings per Customer (kWh)	Regression Estimate p-value	Regression Estimate Adjusted R-squared	Program Verified Savings (kWh)
108	41	804.76	0.003	0.893	**86,914.01**

The evaluators ran separate billing analyses for each state and fuel type, meaning the savings results presented in this report are specific to residential ID participants with electric heating. For the analysis of the Home Energy Audit program, the Evaluators selected a Post-Program Regression (PPR) model as detailed in the Model 2: Random Effects Post-Program Regression Model section above. This model yielded statistically significant average annual savings of 804.76 kWh per household with a p-value of 0.003 and an adjusted R-squared of 0.893, indicating a good model fit to the billing data. This average savings value corresponds to 4.41% of annual electric consumption of households included in the billing analysis. This represents substantial electric energy savings and suggests that customers participating in the Home Energy Audit program in PY2025 have made substantial changes to their electric energy usage behavior as compared to 2024. The evaluators provide additional information on billing analyses in the Appendix A: Billing Analysis Results section below.

3.2.5 Home Insulation Program

Avista's Home Insulation Program (HIP) provides residential customers with a cash incentive to upgrade the insulation in their homes and thereby save energy. After customers fill out an online form, an Avista trusted partner will determine household eligibility and then if appropriate conduct a home visit to check for insulation upgrade opportunities. Should customers agree to the upgrade, the Avista partner will install the insulation and customers (if they qualify) will receive an incentive upfront. Better household insulation reduces heat transfer between the outside and inside of a building thereby reducing heating and cooling energy usage and costs while also improving customer comfort. As a part of the HIP, Avista offers Attic Insulation, Duct Insulation, Duct Sealing, Floor Insulation, and Wall Insulation. As detailed in the following table, the Evaluators referenced the RTF's UES Single Family Weatherization v6.2[9] and Multifamily Weatherization v6.1[10] workbooks to determine the verified savings associated with this program in PY2025.

Table 3-15: Home Insulation Program Measures

Measure	Description	Impact Analysis Methodology
Attic Insulation	Upgrading residential attic insulation	RTF UES SF/MF Weatherization
Floor Insulation	Upgrading residential floor insulation	RTF UES SF/MF Weatherization
Wall Insulation	Upgrading residential attic insulation	RTF UES SF/MF Weatherization

The following table summarizes the electric energy savings for the HIP impact evaluation.

Table 3-16: Home Insulation Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Attic Insulation	6	8,942.49	9,051.63	101.22%
Floor Insulation	1	668.53	668.53	100.00%
Wall Insulation	1	1,716.11	1,716.11	100.00%
Total	**8**	**11,327.14**	**11,436.27**	**100.96%**

The HIP displayed expected savings of 11,327.14 kWh and verified savings of 11,436.27 kWh for a realization rate of 100.96%. The following table summarizes the incentive and measure costs associated with the program.

Table 3-17: Home Insulation Program Costs by Measure

Measure	Incentive Costs	Measure Costs
Attic Insulation	$6,890.00	$21,295.00
Floor Insulation	$712.00	$2,603.78
Wall Insulation	$1,152.00	$7,930.00
Total	**$8,754.00**	**$31,828.78**

The Evaluators describe the impact evaluation tasks completed for this program in the subsections below.

[9] https://rtf.nwcouncil.org/measure/single-family/

[10] https://rtf.nwcouncil.org/measure/multi-family/

3.2.5.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Home Insulation Program. The Evaluators sampled a subset of rebates included in the tracking data to cross-verify key inputs, as summarized in Section 2.2.2.4.

The Evaluators found that all sampled rebates accurately documented the information necessary to characterize savings for the program within the Idaho electric service territory. The Evaluators verified the square footage, insulation thickness (i.e., R-value), heating equipment type, and other inputs necessary to calculate verified savings based on the RTF UES workbooks described above. The Evaluators' tracking data review did not identify any duplicates in the HIP tracking data.

3.2.5.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Home Insulation Program. The Evaluators referenced a set of RTF UES insulation workbooks, as detailed above, to calculate verified savings associated with this program. With a realization rate of 100.96%, verified electric savings matched expected savings very closely. However, there were a few key differences in savings methodology. Per the Evaluators' review, it appeared that Avista also employed RTF UES workbooks to determine savings associated with this program; however, slight differences in Avista's and the Evaluators application of the RTF's deemed savings values led to a non-100% realization rate. The three key contributing factors to differences in RTF savings application appeared to be:

- Differences in RTF heating zone employed for deemed savings calculations
- Differences in electric heating equipment used for deemed savings calculations
- Differences in assigned insulation R-value change applied for deemed savings calculations

To improve concordance between expected and verified savings in the future, the Evaluators would recommend Avista thoroughly review household heating zone, per customer zip code information, and electric heating equipment to ensure they are consistently assigning the appropriate RTF deemed savings value. In addition, while changes in a household's insulation may not perfectly fit into the insulation buckets provided by the RTF, rounding to the nearest insulation bucket would likely be most appropriate. For example, for single family attic insulation, the RTF includes R0-R49 and R11-R49 insulation change buckets (among many others). Should a customer's starting insulation be R9 and the updated insulation be R49, the Evaluators would argue it is most appropriate to assign savings using the R11-R49 bucket instead of the R0-R49 bucket. Ultimately, the Evaluators concluded that barring a few minor discrepancies in RTF UES measure savings application, Avista correctly estimated expected savings for this program.

3.2.6 Residential Midstream Program

Avista recently converted several residential and nonresidential measures from a downstream delivery channel to a midstream delivery channel via local distributors. As Avista notes, midstream approaches have proven successful in other parts of the Pacific Northwest, as well as nationally.

The Midstream Program currently offers midstream incentives to residential customers for measures such as:

- Residential heat pump water heaters (retrofit & new construction)
- Residential split unitary equipment (retrofit & new construction)
- Residential mini split systems (retrofit & new construction)

The residential midstream measures and impact evaluation results are presented in this section. This change in delivery channel, from downstream to midstream, seems to have expanded the benefits gained by Avista residential customers.

This section summarizes Avista's estimated savings for the Midstream Program as well as the verified savings calculated by the Evaluators. Table 3-18 summarizes the measures offered under this program.

Table 3-18: Midstream Program Measures

Measure	Description	Impact Analysis Methodology
E Heat Pump Water Heater (New Construction)	New Construction High efficiency heat pump water heater installation	Avista TRM midstream measure calculations that the Evaluators have reviewed
E Heat Pump Water Heater (Retrofit)	Retrofit High efficiency heat pump water heater installation	
E Mini Split (New Construction)	New Construction mini split Air Source Heat Pump installation	
E Mini Split (Retrofit)	Retrofit mini split Air Source Heat Pump installation	
E Split Unitary Equipment (New Construction)	New Construction split Air Source Heat Pump installation	
E Split Unitary Equipment (Retrofit)	Retrofit split Air Source Heat Pump installation	

The following table summarizes the estimated electric energy savings for the Midstream Program impact evaluation.

Table 3-19: Midstream Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Heat Pump Water Heater (New Construction)	7	11,285.21	11,285.21	100.00%
Heat Pump Water Heater (Retrofit)	1	1,575.50	1,575.50	100.00%
Mini Split (New Construction)	142	274,093.00	274,052.81	99.99%
Mini Split (Retrofit)	378	928,475.00	926,286.90	99.76%
Split Unitary (New Construction)	137	183,531.00	183,583.96	100.03%
Split Unitary (Retrofit)	482	832,503.00	837,692.56	100.62%
Total	**1,147**	**2,231,462.71**	**2,234,476.95**	**100.14%**

The Midstream Program displayed estimated savings of 2,234,476.95 kWh with a realization rate of 100.14%. The following table summarizes the incentive and measure costs associated with the program, because complete measure cost information was missing from the tracking data, the Evaluators assumed incentive and measure costs were identical.

Table 3-20: Midstream Program Incentive Costs by Measure

Measure	Incentive Costs	Incentive Costs
E Heat Pump Water Heater (New Construction)	$1,400.00	$1,400.00
E Heat Pump Water Heater (Retrofit)	$650.00	$650.00
E Mini Split (New Construction)	$55,850.00	$55,850.00
E Mini Split (Retrofit)	$227,300.00	$227,300.00
E Split Unitary Equipment (New Construction)	$68,850.00	$68,850.00
E Split Unitary Equipment (Retrofit)	$206,200.00	$206,200.00
Total	**$560,250.00**	**$560,250.00**

The Evaluators describe the impact evaluation tasks completed for this program in the subsections below.

3.2.6.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Midstream Pilot. The Evaluators selected a subset of rebates to cross-verify tracking data inputs, summarized in in Section 2.2.2.4.

The Evaluators found all selected rebates documented the information necessary to accurately characterize savings for the program within the Idaho electric service territory. The Evaluators verified the model number, efficiency, quantity, and other information necessary to calculate verified savings. The Midstream tracking data is tracked and delivered separately from the remaining residential portfolio, often including extensive detail on product characteristics.

3.2.6.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Midstream Program. The Evaluators reviewed and applied the appropriate Avista TRM values to assign verified savings to each of the midstream measures. As highlighted in the Impact Evaluation Methodology section above, across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM.

The Evaluators reviewed the implementer expected savings values along with verified tracking data to estimate net adjusted program savings for those measures. To calculate verified savings, the Evaluators applied savings values from the Avista TRM that have been reviewed for accuracy by the Evaluators. The Midstream Program displayed a 100.14% realization rate with 2,234,476.95 kWh saved, as highlighted in Table 3-19. The Evaluators concluded that the implementers correctly estimated expected savings values and the deviations in realization rate were primarily due to small differences in the assumed heating capacity of the equipment being used for savings calculations.

3.2.7 Residential Shell Program

The Residential Shell Program provides incentives to customers for improving the integrity of their home's envelope with upgrades to a variety of weatherization measures. Rebates are issued after the measure has been installed for insulation and window measures. Participating homes must have electric or natural gas heating and itemized invoices including measure details such as insulation levels, window values, and square footage. In order to be eligible for incentive, the single-family households, including fourplex or less, must demonstrate an annual electricity usage of at least 8,000 kWh. Primary multifamily homes with shared interior walls including apartments, duplexes, townhomes, and condos have no minimum usage requirement. Seasonal and recreational homes are not eligible. This program includes free manufactured home duct sealing. Table 3-21 summarizes the measures offered.

Table 3-21: Shell Program Measures

Measure	Description	Impact Analysis Methodology
E Attic Insulation With Electric Heat	Attic insulation for homes heated with electricity	RTF UES
E Energy Star Certified Insulated Door	Replace door with ENERGY STAR rated door in homes heated with electricity	RTF UES
E Floor Insulation With Electric Heat	Floor insulation for homes heated with electricity	RTF UES
E Sliding Glass Doors DIY with Electric Heat	High efficiency sliding glass door replacement for homes heated with electricity installed by homeowner	RTF UES
E Sliding Glass Doors with Electric Heat	High efficiency sliding glass door replacement for homes heated with electricity installed by contractor	RTF UES
E Storm Window with Electric Heat	High-efficiency storm window replacement for homes heated with electricity	RTF UES
E Wall Insulation With Electric Heat	Wall insulation for homes heated with electricity	RTF UES
E Window DIY Replc With Electric Heating	High-efficiency double pane window replacement for homes heated with electricity installed by homeowner	RTF UES
E Window Replc from Single Pane W Electric Heat	High-efficiency double pane window replacement for homes heated with electricity installed by contractor	RTF UES
E Multifamily Attic Insulation With Electric Heat	Attic insulation for homes heated with electricity	RTF UES
E Multifamily Energy Star Certified Insulated Door	Replace door with ENERGY STAR rated door in homes heated with electricity	RTF UES
E Multifamily Floor Insulation With Electric Heat	Floor insulation for homes heated with electricity	RTF UES
E Multifamily Sliding Glass Doors DIY with Electric Heat	High efficiency sliding glass door replacement for homes heated with electricity installed by homeowner	RTF UES
E Multifamily Sliding Glass Doors with Electric Heat	High efficiency sliding glass door replacement for homes heated with electricity installed by contractor	RTF UES
E Multifamily Wall Insulation With Electric Heat	Wall insulation for homes heated with electricity	RTF UES
E Multifamily Window DIY Replc With Electric Heating	High-efficiency double pane window replacement for homes heated with electricity installed by homeowner	RTF UES
E Multifamily Window Replc from Single Pane W Electric Heat	High-efficiency double pane window replacement for homes heated with electricity installed by contractor	RTF UES

The following table summarizes the verified electric energy savings for the Shell Program impact evaluation.

Table 3-22: Shell Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Attic Insulation With Electric Heat	12	27,176.46	4,973.17	18.30%
E Energy Star Certified Insulated Door	19	15,037.38	1,318.52	8.77%
E Floor Insulation With Electric Heat	3	2,242.50	1,662.58	74.14%
E Sliding Glass Doors DIY with Electric Heat	2	968.70	546.46	56.41%
E Sliding Glass Doors with Electric Heat	31	12,593.10	12,086.24	95.98%
E Wall Insulation With Electric Heat	5	8,203.34	6,580.79	80.22%
E Window DIY Replc With Electric Heating	17	9,637.10	7,115.15	73.83%
E Window Replc from Single Pane W Electric Heat	111	111,989.00	69,713.25	62.25%
E Multifamily Energy Star Certified Insulated Door	5	4,212.46	357.67	8.49%
E Multifamily Sliding Glass Doors DIY with Electric Heat	2	645.80	364.31	56.41%
E Multifamily Sliding Glass Doors with Electric Heat	8	2,906.10	12,093.59	416.14%
E Multifamily Window DIY Replc With Electric Heating	3	1,089.90	2,213.58	203.10%
E Multifamily Window Replc from Single Pane W Electric Heat	16	10,786.40	30,598.81	283.68%
Total	**234**	**207,488.24**	**149,624.12**	**72.11%**

The Shell Program displayed verified savings of 149,624.12 kWh with a realization rate of 72.11% against the expected savings for the program. The following table summarizes the incentive and measure costs associated with the program.

Table 3-23: Shell Program Costs by Measure

Measure	Incentive Costs	Measure Costs
SF E Attic Insulation With Electric Heat	$10,958.25	$34,036.56
SF E Energy Star Certified Insulated Door	$2,700.00	$66,518.40
SF E Floor Insulation With Electric Heat	$2,437.50	$7,694.96
SF E Sliding Glass Doors DIY with Electric Heat	$720.00	$7,081.87
SF E Sliding Glass Doors with Electric Heat	$18,840.00	$272,546.65
SF E Wall Insulation With Electric Heat	$4,332.75	$19,553.98
SF E Window DIY Replc With Electric Heating	$7,396.00	$42,400.38
SF E Window Replc from Single Pane W Electric Heat	$168,750.00	$1,818,076.00
MF E Energy Star Certified Insulated Door	$800.00	$10,945.43
MF E Sliding Glass Doors DIY with Electric Heat	$480.00	$1,197.78
MF E Sliding Glass Doors with Electric Heat	$3,960.00	$33,174.88
MF E Window DIY Replc With Electric Heating	$810.00	$3,764.40
MF E Window Replc from Single Pane W Electric Heat	$16,920.00	$133,174.80
Total	**$239,104.50**	**$2,450,166.09**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Shell Program in the section below.

3.2.7.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Shell Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The Evaluators reviewed each measure's number of units, square footage, and insulation where available. Not all rebated projects provided sufficient documentation to verify each of the specifications that the Evaluators reviewed such as square footage quantities for windows and sliding glass doors. When square footage was not provided, the Evaluators imputed a square footage of 20 square feet per window and 40 square feet per sliding glass door to apply RTF savings at the square footage level so that RTF deemed savings could be applied.[11,12]

The Evaluators found that verified attic insulation, certified insulated doors, and some window measure savings were lower than expected primarily due to differences in the Avista TRM's application of deemed savings and the RTF UES workbook application of deemed savings. In most cases Avista applies a single savings value to each installed measure regardless of customer location or heating equipment type. In contrast, the RTF differentiates savings by square footage, heating type, R-values (for insulation measures), U-factors (for window measures), and climate zone. The lack of granularity in the Avista TRM data led to a low realization rate for many measures.

3.2.7.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Shell Program. The Evaluators calculated verified savings for the electric measures using the RTF workbook in place at the time the savings goals for the program were finalized. The Evaluators calculated verified savings for each measure using the active RTF values and verified tracking data. These UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment.

The Shell Program in total displays a realization rate of 76.24% with 790,752.54 kWh verified electric energy savings in the Idaho service territory, as displayed in Table 3-22.

Realization rates deviate from 100% largely due to two factors. First, there is a significant difference in the methods applied by the Avista TRM and the RTF for efficient window, insulated door, and sliding glass door measures. The RTF's deemed savings are estimated at the square-foot unit level, whereas the Avista TRM estimates savings per window or door. This causes significant variance between the two estimates when the unit-energy-savings are scaled by two different quantities. It follows that measures with smaller sample sizes are more vulnerable to this variance, as demonstrated by the low realization rates in the E Sliding Glass Doors DIY with Electric Heat measure. In addition, in the case of insulated doors, the Avista TRM assumed doors yielded savings of 800 kWh per door while the RTF assigns savings between 1.71 and 4.73 kWh per square foot of insulated door. Most sampled doors had relatively small square footage which yielded substantially lower overall verified savings than Avista's ex-ante estimates.

Second, Attic insulation, wall insulation, and floor insulation measures are evaluated at different efficiency tiers depending on the R-value of the pre-existing and newly installed insulation. Many of these projects are displaying lower realization rates due to a mismatch between the ex-ante expected

[11] Square footage estimate for residential windows are drawn from a Pacific Northwest National Laboratory analysis found here: https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-28809.pdf

[12] Square footage estimate for residential sliding glass doors are drawn from the RTF's SEEM model found here: https://nwcouncil.app.box.com/s/olba73ckvxploqpg024gclydzz38i3xv

savings claimed by Avista and the ex-post verified savings calculated based on the RTF. For example, Avista claimed savings of 1.86 kWh per square foot of attic insulation while the RTF deemed savings estimate was 0.52 kWh per square foot. In addition to differences in expected and verified savings insulation savings, several sampled insulation measures did not have R-values that qualified for RTF savings. Those sampled insulation projects that did not qualify yielded 0 kWh savings which reduced the sampled realization rate for those measures. Differentiating insulation measure expected savings by installed R-value and customer location would help Avista's ex-ante estimates align more closely to verified savings estimates in the future.

4. Low Income Impact Evaluation Results

The Low Income Program delivers energy efficiency measures to low-income residential customers in its Idaho service territory with a partnership with five network Community Action Agencies ("Agencies") and one tribal weatherization organization. The Agencies qualify income to prioritize and serve households based on a variety of characteristics. In-house or contract crews install approved program measures. In addition, the Agencies have access to other monetary resources which allow them to weatherize a home or install additional energy efficiency measures.

During PY2025, the Evaluators completed impact evaluations on Avista's Low-Income Program for both the 2024 and 2025 program years.The following sections summarize findings for each electric impact evaluation in the Low-Income Portfolio in the Idaho service territory.

The Evaluators used data collected and reported in the tracking database, online application forms, the Northwest Energy Efficiency Alliance (NEEA) Residential Building Stock Assessment[13], and RTF values to evaluate verified savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 4-1 summarizes the Low Income expected and verified impact savings by program year.

Table 4-1: PY2025 Low Income Verified Impact Savings by Program Year

Program Year	Program	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
2024	Low Income	64	64,877.67	45,074.37	69.48%
2025	Low Income	124	262,202.29	142,111.79	54.20%
Total		**188**	**327,079.96**	**187,186.16**	**57.23%**

The Idaho Low Income electric program yielded verified savings of 45,074.37 kWh in 2024 and 142.11.79 kWh in 2025 for realization rates of 69.48% and 54.20%, respectively. The following table presents low-income incentive and measures costs by program year.

Table 4-2: PY2025 Low Income Costs by Program Year

Program Year	Program	Incentive Costs	Measure Costs
2024	Low Income	$213,699.98	$185,826.05
2025	Low Income	$842,001.56	$732,175.24
Total		**$1,055,701.54**	**$918,001.29**

4.1 Simple Verification Results

Details on the simple verification conducted for the Low Income program are presented below.

[13] https://neea.org/wp-content/uploads/2025/03/2022-Residential-Building-Stock-Assessment.pdf

4.1.1 In-Service Rates

4.1.1.1 Low Income Program ISR

The Evaluator conducted a simple participant verification survey for the Low Income Program to calculate in-services rates of installed measures. Due to the limited number of completed surveys (n = 14), responses from both states were aggregated to increase the stability of the verification estimate. Based on this combined dataset, the Evaluators calculated an overall installation verification rate of 93%.

Non-verification responses were concentrated among measures such as air sealing and insulation, which are typically not visible to participants and therefore susceptible to recall error and limited participant awareness of work performed by contractors. Because all Low Income measures are installed through program-delivered services rather than customer-directed installations, the likelihood of true non-installation was assessed to be low. In this context, the observed non-verification is more plausibly attributed to survey measurement error rather than actual deviations from installation requirements.

Given the small sample size, the nature of the measures involved, and the controlled contractor delivery model, the evaluation team determined that the most technically appropriate approach was to treat all Low Income Program measures as fully installed, applying a 100% ISR for the PY2024 and PY2025 evaluation. The survey-derived rate is noted for transparency, but it is not used to downward-adjust measure savings due to the limitations described above.

4.2 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Low Income Sector in the section below.

4.2.1 Low Income Program

The Low Income Program delivers energy efficiency measures to low-income residential customers in its Idaho service territory with a partnership with five network Community Action Agencies ("Agencies") and one tribal weatherization organization. The Agencies qualify income to prioritize and treat households based on several characteristics. In-house or contract crews install approved program measures. In addition, the Agencies have access to other monetary resources which allow them to weatherize a home or install additional energy efficiency measures.

Avista provides CAP agencies with the following approved measure list, which are reimbursed in full by Avista. Avista also provides a rebate list of additional energy saving measures the CAP agencies are able to utilize which are partially reimbursed. Table 4-3 summarizes the measures offered under this program.

Table 4-3: Low Income Program Measures

Measure	Impact Analysis Methodology
E Air Infiltration	RTF UES with NEEA[14] weighted heating adjustments
E Attic Insulation With Electric Heat	
E Conversion to Air Source Heat Pump	
E Conversion to Ductless Heat Pump	
E Door Sweep	
E Duct Insulation	
E Duct Sealing	
E Exterior Doors	
E Floor Insulation With Electric Heat	
E Health Safety and Repair	
E Heat Pump Water Heater	
E Lighting	
E Refrigerator	
E Smart Thermostat	
E Wall Insulation With Electric Heat	
E Window Replacement from Single Pane W Electric Heat	

Table 4-4 summarizes the PY2024 verified electric energy savings for the Low Income Program impact evaluation.

[14] https://neea.org/wp-content/uploads/2025/03/2022-Residential-Building-Stock-Assessment.pdf

Table 4-4: PY2024 Low Income Program Claimed Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Air Infiltration	10	6,310.00	2,306.25	36.55%
E Attic Insulation With Electric Heat	3	2,526.24	7,302.94	289.08%
E Conversion to Air Source Heat Pump	7	41,057.31	21,989.36	53.56%
E Conversion to Ductless Heat Pump	1	3,016.23	1,047.56	34.73%
E Duct Insulation	2	536.00	332.62	62.06%
E Duct Sealing	1	709.93	479.60	67.56%
E Exterior Doors	7	1,619.40	635.25	39.23%
E Floor Insulation With Electric Heat	3	3,547.44	2,176.36	61.35%
E Health Safety and Repair	11	0.00	0.00	N/A
E Lighting	10	62.00	0.00	0.00%
E Refrigerator	1	39.00	58.26	149.39%
E Window Replacement from Single Pane W Electric Heat	8	5,454.12	8,746.18	160.36%
Total	**64**	**64,877.67**	**45,074.37**	**69.48%**

The Low Income Program in PY2024 displayed verified savings of 45,074.37 kWh with a realization rate of 69.48%. The following table summarizes the incentive and measure costs associated with the program in PY2024.

Table 4-5: PY2024 Low Income Program Claimed Costs by Measure

Measure	Incentive Costs	Measure Costs
E Air Infiltration	$20,369.25	$17,712.39
E Attic Insulation With Electric Heat	$7,174.10	$6,238.34
E Conversion to Air Source Heat Pump	$102,197.49	$88,867.38
E Conversion to Ductless Heat Pump	$8,593.26	$7,472.40
E Duct Insulation	$937.38	$815.11
E Duct Sealing	$264.50	$230.00
E Exterior Doors	$9,726.89	$8,458.16
E Floor Insulation With Electric Heat	$7,143.97	$6,212.14
E Health Safety and Repair	$23,002.59	$20,002.24
E Lighting	$279.75	$243.27
E Refrigerator	$1,999.85	$1,739.00
E Window Replacement from Single Pane W Electric Heat	$32,010.95	$27,835.62
Total	**$213,699.98**	**$185,826.05**
Total without Health Safety and Repair	**$190,697.39**	**$165,823.81**

Table 4-6 summarizes the PY2025 verified electric energy savings for the Low Income Program impact evaluation.

Table 4-6: PY2025 Low Income Program Claimed Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
E Air Infiltration	15	9,465.00	3,459.37	36.55%
E Attic Insulation With Electric Heat	2	1,217.52	3,519.65	289.08%
E Conversion to Air Source Heat Pump	35	205,286.55	109,946.81	53.56%
E Conversion to Ductless Heat Pump	6	18,097.38	6,285.39	34.73%
E Duct Insulation	5	1,407.00	873.12	62.06%
E Exterior Doors	13	2,591.04	1,016.40	39.23%
E Floor Insulation With Electric Heat	6	7,867.08	4,826.46	61.35%
E Furnace	2	8,654.40	0.00	0.00%
E Health Safety and Repair	24	0.00	0.00	N/A
E Lighting	2	18.00	0.00	0.00%
E Window Replacement from Single Pane W Electric Heat	14	7,598.32	12,184.60	160.36%
Total	**124**	**262,202.29**	**142,111.79**	**54.20%**

The Low Income Program in PY2025 displayed verified savings of 142,111.79 kWh with a realization rate of 54.20%. The following table summarizes the incentive and measure costs associated with the program in PY2025.

Table 4-7: PY2025 Low Income Program Claimed Costs by Measure

Measure	Incentive Costs	Measure Costs
E Air Infiltration	$20,877.32	$18,154.18
E Attic Insulation With Electric Heat	$2,426.21	$2,109.75
E Conversion to Air Source Heat Pump	$526,074.19	$457,455.82
E Conversion to Ductless Heat Pump	$94,210.30	$81,922.00
E Duct Insulation	$3,397.24	$2,954.12
E Exterior Doors	$17,061.81	$14,836.34
E Floor Insulation With Electric Heat	$13,141.52	$11,427.41
E Furnace	$15,743.04	$13,689.60
E Health Safety and Repair	$80,516.52	$70,014.35
E Lighting	$78.24	$68.04
E Window Replacement from Single Pane W Electric Heat	$68,475.17	$59,543.63
Total	**$842,001.56**	**$732,175.24**
Total without Health Safety and Repair	**$761,485.04**	**$662,160.89**

4.2.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators performed a comprehensive review of the Low Income Program tracking database to assess data completeness, accuracy, and consistency. As part of this process, the Evaluators selected a random subset of rebate applications to cross-verify tracking system inputs with submitted project documentation, as summarized in Section 2.2.2.4. The Evaluators found no duplicate participants in the project data and found that program data appropriately reflected customer rate information.

4.2.1.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Low Income Program for PY2024 and PY2025. The Evaluators calculated verified savings for the electric measures using the RTF workbook in

place at the time the savings goals for the program were finalized. These RTF UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment.

The Low Income Program displayed the following savings and realization rates for each project year:

- PY2024: 45,074.37 kWh, 69.48% RR
- PY2025: 142,111.79 kWh, 54.20% RR

Measure details can be found in Table 4-5 and Table 4-7. Potential causes of discrepancies between reported and verified savings for the Low Income Program are outlined in the sections below.

Heating Type Data Gaps
The tracking data did not indicate the type of electric heating established in each participating household. Because heating system type is a required input for Regional Technical Forum (RTF) savings calculations, the Evaluators applied weighted heating type averages derived from the 2022 Northwest Energy Efficiency Alliance (NEEA) Residential Building Stock Assessment.

Measure Quantity Field Inconsistencies
The measure quantity field in the tracking data was populated inconsistently across measure types. For example, for insulation measures, the quantity represented square footage installed, whereas for other measures, such as door sweeps or ASHPs, the field represented count of units or projects installed.

To support future evaluations and ensure data clarity, the Evaluators recommend that the tracking system include separate, measure-specific data fields (e.g., “Installed Area (sq ft),” “Quantity Installed,” “Units per Project”) to reduce ambiguity and improve data usability.

Manufactured and Multifamily Home Treatment
In cases where RTF savings methodologies do not provide measure-specific savings values for Manufactured or Multifamily homes, the Evaluators applied Single Family savings values.

Air Source Heat Pump (ASHP) Data Limitations
RTF savings methodologies for air source heat pumps require information on whether the home’s pre-existing heating system included central air conditioning. This detail was not captured in the program’s tracking system. To address this gap, the Evaluators used publicly available resources to determine whether individual homes had central AC. This information incorporated into each project’s impact analysis to more accurately categorize pre-existing system types and apply RTF savings values.

Exterior Door Assumptions
The tracking database did not include the square footage of replacement exterior doors. To complete the savings calculations, the Evaluators assumed an average replacement door area of 20 square feet per project, based on typical residential door dimensions.

Window Measure Data Gaps
RTF savings methodologies for windows require identification of installed window type. Because the tracking data only listed the pre-existing window type, the Evaluators applied a conservative assumption framework when assigning savings.

5. Non Residential Impact Evaluation Results

The Evaluators completed an impact evaluation on Avista's Non Residential portfolio to verify program-level and measure-level energy savings for PY2025. The following sections summarize findings for each electric impact evaluation in the Non Residential Portfolio in the Idaho service territory. The Evaluators used data collected and reported in the tracking database, online application forms, Avista TRM, RTF, IPMVP-approved analyses, and supplemental sources to evaluate savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 5-1 summarizes the Non Residential verified impact savings by program.

Table 5-1: Non Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Building Operator Certification	1	0.00	119,000.00	NA
Green Motors	2	10,529.00	7,625.21	72.42%
Grocer	1	2,919.00	2,918.58	99.99%
Non Residential Midstream	69	163,821.00	163,691.23	99.92%
Prescriptive Lighting	471	3,818,500.45	3,900,750.23	102.15%
Small Business Lighting	1,924	18,592,355.85	18,962,968.96	101.99%
Non Residential Shell	2	14,280.42	10,120.54	70.87%
Site Specific - Lighting	6	101,225.00	91,700.23	90.59%
Site Specific - Other	9	9,746,501.06	9,419,907.14	96.65%
Total	**2,485**	**32,450,131.78**	**32,678,682.11**	**100.70%**

Non Residential program incentive and measure costs are presented in the following table. Measure costs were not presented in the Non Residential midstream program tracking data and as such they were assumed to be identical to incentive costs.

Table 5-2: Non Residential Costs by Program

Program	Incentive Costs	Measure Costs
Building Operator Certification	$0.00	$0.00
Grocer	$1,400.00	$31,285.00
Non Residential Midstream	$300.00	$945.00
Prescriptive Lighting	$74,140.00	$74,140.00
Small Business Lighting	$835,378.12	$1,712,561.61
Non Residential Shell	$10,726,871.91	$11,176,233.52
Site Specific - Lighting	$13,883.38	$29,800.00
Site Specific - Other	$19,639.61	$72,226.27
Total	**$13,623,869.24**	**$18,069,032.25**

In PY2025, verified energy savings of 32,678,682.11 kWh were identified for Avista's non-residential electric measures in Idaho. All programs except for the Green Motors and Non Residential Shell program had realization rates between 90% and 103%. The Green Motors program had a realization rate of 72.42% while the Non Residential Shell program had a 70.87% realization rate. The Building Operator Certification program did not yield a realization rate due to no expected savings being claimed;

however, the Evaluators identified 119,000.00 kWh verified savings associated with the program. Across all Non Residential programs the Evaluators calculated a 100.70% realization rate.

5.1 Database & Document Verification

Before conducting the impact analyses, the Evaluators conducted a database review for all prescriptive programs. This process began with the selection of representative samples from each program. The Evaluators developed a sampling plan that achieves a sampling precision of ±10% at 90% statistical confidence – or "90/10 precision" – for document verification. Details about sampling methods can be found in 2.2.1 Database Review and details about the verification process can be found in Section 2.2.2.4. The Evaluators reviewed both tracking data and additional documentation materials to identify any typos, duplicates, or other data concerns that might affect the verified savings analysis. Information on the sample sizes reviewed as a part of the database and document verification process can be found in the Sampling Methodology for Most Programs section above.

5.2 Survey Verification

Unlike residential measures, non-residential measures typically have a 100% installation rate or a deemed in-service rate (ISR) included in RTF and/or Avista TRM. One key exception to this is the Prescriptive Lighting program, as lighting equipment if often small and inexpensive enough that customers can forget to install measures. To address this, the Evaluators conducted survey verification to identify an in-service rate for the Prescriptive Lighting program.

5.2.1 Prescriptive Lighting In-Service Rates

The Evaluators calculated in-service rates (ISRs) of installed measures from simple verification surveys deployed to program participants in the Prescriptive Lighting program. The Evaluators asked participants if the rebated equipment is currently installed and working. Measure-specific in-service rates for the Idaho service territory can be found in the following table. The Evaluators assumed an in-service rate of 100% for any measures not included in the following table.

Table 5-3: Prescriptive Lighting In-Service Rates

Program	Measure	Respondents	ISR	ISR Methodology
Prescriptive Lighting	All Lighting Measures	57	98.25%	Verification survey

5.3 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Non Residential sector in the section below.

5.3.1 Building Operator Certification

The C&I Building Operator Certification (BOC) Program is being offered by Avista in the 2025-2026 biannual period. This program is offered to encourage building operator certified credentialed operators to save energy in buildings they manage while reducing electrical demand. The BOC program has consistently produced positive documented energy savings and has proved to be cost effective. Third party evaluators have assessed and documented the BOC's energy savings impacts[15].

The Evaluators used the BOC independent impact evaluation completed by NEEA, approved by the Washington Utilities and Transportation Commission to estimate verified electric impacts for the program.

Table 5-4 summarizes the electric measures offered under this program and corresponding impact M&V methodology source, for each building operator certification completed in PY2025.

Table 5-4: Building Operator Certification Program UES Sources

Measure	Impact Analysis Savings Section(s)
Building Operator Certification – Electric	WUTC approved BOC's energy savings impacts[16]
Building Operator Certification – Natural Gas	

The independent study by Navigant[17] indicates annual savings of roughly 119,000 kWh per operator. The assumed measure life is five years, meaning that the methodology assigns savings for five years beginning in the year of certification for each operator. If a student receives a Level 2 certification or a certification renewal, then the measure life extends for five years from the most recent date of certification. The WUTC approved BOC document stipulates "Active building operator refers to building operators who have obtained a new certification or renewed a previous certification within the past 5 years". The Evaluators applied these third-party results to each building operator who has completed a certification within the past 5 years. The following table summarizes the verified electric energy savings for the BOC Program impact evaluation.

Table 5-5: BOC Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Building Operator Certification	1	NA	119,000.00	NA
Total	**1**	**NA**	**119,000.00**	**NA**

Incentive and measure costs were not included in the BOC tracking data and as such the following table presents "NA" values for both.

[15] https://www.theboc.info/wp-content/uploads/2020/08/2020-BOC-Energy-Savings-FAQ_1.0.pdf
[16] https://www.theboc.info/wp-content/uploads/2020/08/2020-BOC-Energy-Savings-FAQ_1.0.pdf
[17] https://www.theboc.info/pdf/Eval-E11-223_LTMT.pdf

Table 5-6: BOC Program Costs by Measure

Measure	Project Count	Incentive Costs	Measure Costs
Building Operator Certification	1	NA	NA
Total	**1**	NA	NA

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the BOC Program in the section below.

5.3.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the BOC Program. The Evaluators reviewed all incented course and non-course applications, completion dates, and results. The Evaluators found a total of 1 building operator certification was completed in 2025.

5.3.1.2 Verified Savings

The Evaluators reviewed and applied the appropriate NEEA electric impacts approved by the WUTC estimate customer-level and program-level savings for this program. The verified savings for the program are 119,000.00 kWh as displayed in Table 5-5.

5.3.2 Green Motors Program

The Green Motors Program ensures quality rewinding that results in a motor maintaining its original efficiency, which is commonly called a "green rewind." The Green Motors Practices Group (GMPG) is a non-profit organization that identifies, promotes, and verifies only excellent member motor service centers. These companies are committed to consistently producing repair/rewinds that retain or improve reliability and efficiency and provide on-site motor driven systems assistance.

The incentive for this program is $1 per HP of the motor being rewound, which 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. The Green Motors Program provides up to a $10,000 incentive for a 5,000 HP motor.

Table 5-10 summarizes the measures rebated in PY2025 under this program.

Table 5-7: Green Motors Program Measures

Measure	Impact Analysis Methodology
Motor Rewind (Industrial)	RTF UES Green Motor Rewind Measure v5.2

The following table summarizes the verified electric energy savings for the Green Motors Program impact evaluation.

Table 5-8: Green Motors Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Motor Rewind (Industrial)	2	10,529.00	7,625.21	72.42%
Total	**2**	**10,529.00**	**7,625.21**	**72.42%**

The following table summarizes the incentive and measure costs associated with the program.

Table 5-9: Green Motors Program Costs by Measure

Measure	Measure Unit Count	Incentive Costs	Measure Costs
Motor Rewind (Industrial)	2	$1,400.00	$31,285.00
Total	**2**	**$1,400.00**	**$31,285.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Green Motors Program in the section below.

5.3.2.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Green Motors Program. The Evaluators review all rebate applications to cross-verify tracking data inputs. Data points checked between project applications and program tracking data including measure specification, quantity, and cost values. The Evaluators did not identify any duplicates or errors in the tracking data or other program documentation.

5.3.2.2 Impact Analysis

This section summarizes the verified savings results for the Green Motors Program. The Evaluators calculated verified savings for the two installed measures using the appropriate RTF UES workbook. Per

the RTF UES Green Motor Rewind workbook, the Evaluators applied different savings to the two rewound motors based on their horsepower.

5.3.2.3 Verified Savings

The Evaluators reviewed and applied the appropriate UES values to the verified tracking data to estimate program savings for the two projects. The verified savings for the program are 7,625.21 kWh with a realization rate of 72.42%. The variance between expected and verified savings seems to be due to different assumptions regarding the efficiency improvements associated with motor rewinds between the Avista TRM and the RTF UES workbook. Avista's expected savings were 4,535.00 kWh and 5,994.00 kWh for a 300 and a 400 HP motor, respectively. In contrast, the RTF suggests savings of 3,284.11 kWh for the former and 4,341.10 for the latter.

5.3.3 Grocer Program

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. Customers must submit a completed rebate form and invoice within 90 days after the installation has been completed. 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 5-10 summarizes the measures rebated in PY2025 under this program.

Table 5-10: Grocer Program Measures

Measure	Impact Analysis Methodology
Walk-In Evaporator Fan Motor Retrofit	RTF Commercial Grocery Walk-In Evaporator Fan Motor Retrofit v.5.1

The following table summarizes the verified electric energy savings for the Grocer Program impact evaluation.

Table 5-11: Grocer Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Walk-In Evaporator Fan Motor Retrofit	1	2,919.00	2,918.58	99.99%
Total	**1**	**2,919.00**	**2,918.58**	**99.99%**

The following table summarizes the incentive and measure costs associated with the program.

Table 5-12: Grocer Program Costs by Measure

Measure	Measure Unit Count	Incentive Costs	Measure Costs
Walk-In Evaporator Fan Motor Retrofit	3	$300.00	$945.00
Total	**3**	**$300.00**	**$945.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Grocer Program in the section below.

5.3.3.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Grocer Program. The Evaluators review all rebate applications to cross-verify tracking data inputs, summarized in Section 5.1. Data points checked between project applications and program tracking data including measure specification, quantity and cost values.

Table 5-13 shows the project population, the number of projects checked and the overall precision.

Table 5-13: Grocer Verification Precision

Population	Sampled	Precision
1	1	0.0%

The Evaluators found all rebate equipment met or exceeded the measure efficiency requirements for the Grocer Program.

5.3.3.2 Impact Analysis

This section summarizes the verified savings results for the Grocer Program. The Evaluators calculated verified savings for the food service measures using the appropriate RTF UES to a census of measures.

5.3.3.3 Verified Savings

The Evaluators reviewed and applied the appropriate UES values to the verified tracking data to estimate program savings for the included measures. The verified savings for the program are 2,918.58 kWh with a realization rate of 99.99%, as displayed in Table 5-12. The variance between reported and verified savings is attributable to the reported savings calculations rounding UES values to the nearest integer, whereas the verified savings calculations utilized the precise UES values.

5.3.4 Non Residential Midstream Program

Avista designed the Midstream Program to shift the onus of applying for rebates from end-use customers to distributors. Not only does this reduce customers'/contractors' administrative burden (i.e., no need to submit paperwork tracking energy efficient installations), but it is also anticipated to increase high-efficiency equipment options at competitive prices. Midstream rebates provide an immediate discount on eligible products, which appear as a line item on customer invoices. Starting on July 1, 2024, the Midstream Program replaced Avista's residential and commercial downstream space-heating and water-heating programs as well as the commercial food service equipment rebate program.

Through the Midstream Program, Avista seeks to achieve three overall objectives:

- Provide greater long-term, cost-effective savings for residential and commercial customers alike
- Reduce Avista's administrative burden in processing space-heating, water-heating, and commercial kitchen equipment applications
- Accelerate the market transformation of energy-efficient equipment

The Midstream Program provides bought-down equipment to both residential and non-residential customers. This chapter discusses and presents results only for non-residential measures. Table 5-14 summarizes the measures available to be rebated in PY2025 under this program.

Table 5-14: Non Residential Midstream Program Measures

End Use	Measure	Impact Analysis Methodology
Food Service	Combination Oven	Avista TRM (per RTF Combination Ovens)
	Convection Oven	Avista TRM (per RTF Convection Ovens)
	Demand Control Kitchen Ventilation	Avista TRM
	Dishwasher	Avista TRM (per ENERGY STAR CFS Calculator)
	Fryer	Avista TRM
	Griddle	Avista TRM (per RTF Griddles)
	Hot Food Holding Bin	Avista TRM (per CA eTRM HFHB)
	Hot Food Holding Cabinet	RTF HFHC
	Ice Machine	Avista TRM (per RTF Ice Machines)
	Rotisserie Oven	Avista TRM (per CA eTRM Rotisserie Ovens)
	Steamer	Avista TRM (per RTF Steamers)
HVAC	Boiler	Avista TRM (per RTF Commercial Boilers)
	Furnace	Avista TRM (per billing analysis)
	Mini/Multi Split	Avista TRM (per engineering algorithm)
	Packaged Unitary Equipment	Avista TRM (per engineering algorithm)
	Split Unitary Equipment	Avista TRM (per engineering algorithm)
	Water Source Heat Pump	Avista TRM (per engineering algorithm)
Water Heating	Heat Pump Water Heater	Avista TRM (per RTF HPWH)
	Instantaneous Water Heater	Avista TRM (per RTF Gas Water Heaters)
	Storage Water Heater	Avista TRM (per RTF Gas Water Heaters)
Other	Ultra-Low Temperature Freezer	Avista TRM (per CA eTRM Ultra Low Temp Freezers)

The following table summarizes the verified electric energy savings for the Midstream Program impact evaluation.

Table 5-15: Non Residential Midstream Program Verified Electric Savings

Measure	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Combination Oven	1	3,868.00	3,868.00	100.00%
Dishwasher	3	24,917.00	24,917.00	100.00%
Hot Food Holding Bin	2	8,802.00	8,802.00	100.00%
Ice Machine	3	953.00	953.00	100.00%
Mini/Multi Split	48	84,549.00	84,422.71	99.85%
Split Unitary Equipment	9	14,366.00	14,361.30	99.97%
Ultra-Low Temperature Freezer	3	26,366.00	26,367.21	100.00%
Total	**69**	**163,821.00**	**163,691.23**	**99.92%**

The following table summarizes the incentive and measure costs associated with the program. Of note, no complete cost information outside of incentive costs was included in the tracking data provided, and as such the Evaluators have assumed incentive costs are identical to overall measure costs.

Table 5-16: Non Residential Midstream Program Costs by Measure

Measure	Measure Unit Count	Incentive Costs	Measure Costs
Combination Oven	1.00	$850.00	$850.00
Dishwasher	3.00	$3,220.00	$3,220.00
Hot Food Holding Bin	3.00	$1,695.00	$1,695.00
Ice Machine	4.00	$575.00	$575.00
Mini/Multi Split	50.00	$54,900.00	$54,900.00
Split Unitary Equipment	9.00	$5,100.00	$5,100.00
Ultra-Low Temperature Freezer	6.00	$7,800.00	$7,800.00
Total	**76.00**	**$74,140.00**	**$74,140.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Midstream Program in the section below.

5.3.4.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Midstream Program. Due to the program delivery pathway, the Program does not include project applications. For this program, the Evaluators examined a representative sample of projects to ensure that program tracking data accurately reflected measure characteristics used in assessing savings. Data points checked include equipment configurations, capacities and efficiency levels. The Evaluators found all rebate equipment met or exceeded the measure efficiency requirements for the Midstream Program and no substantive equipment specifications differed from those in the tracking data. Furthermore, no duplicates were identified in the tracking data.

5.3.4.2 Impact Analysis

Once verification was completed, to estimate program savings for these measures the Evaluators reviewed and applied the appropriate Avista TRM values to assign verified savings to each of the

midstream measures. As highlighted in the Impact Evaluation Methodology section above, across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM. For measures not included in the TRM, the Evaluators referenced a relevant RTF workbook to identify appropriate verified savings values. Savings values are specific to installed equipment efficiency and configuration.

5.3.4.3 Verified Savings

The verified savings for the program are 163,691.23 kWh with a realization rate of 99.92%. All measures except had realization rates within a percentage of 100%, suggesting excellence consistency in ex-ante and ex-post savings methodologies. Slight differences in savings calculation parameters one sampled Mini/Multi Split project and a difference in rounding for two sampled Split Unitary Equipment measures contributed to their non-100% realization rates.

5.3.5 Prescriptive Lighting Program

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 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 a pre-determined incentive for many common lighting retrofits, thereby streamlining the energy efficiency and rebate delivery process. The Prescriptive Lighting program makes it easier for customers – especially smaller customers and vendors – to improve the efficiency of their lighting equipment.

The measures included in the Prescriptive Lighting program include retrofits from fluorescent lamps and fixtures, HID, directional, and incandescent can fixtures to more energy-efficient LED light sources and controls. Table 5-17 summarizes the measures offered under this program.

Table 5-17: Prescriptive Lighting Program Measures

Location	Measure	Impact Analysis Methodology
Interior	LED tubes	Prescriptive Calculations with RTF and Custom Inputs
	LED U-Bend	
	LED W reduction	
	LED Downlamps/Directional	
	Linear LED Fixtures	
	HID LED fixtures/lamps	
	Occupancy Sensors	
	LLLC Fixtures	
Exterior	HID LED fixtures/lamps	
	Sign Lighting	

Prescriptive Lighting Program impact evaluation results by measure type are summarized in Table 5-18.

Table 5-18: Prescriptive Lighting Program Verified Electric Savings

Measure Type	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
TLED (4') Lamp to TLED (4') Lamp with 5 watt or more reduction	4	108,074.59	112,560.11	104.15%
T12/T8 (4') Lamp to 1-Lamp less than 23 watt T8 TLED	88	868,677.28	879,206.78	101.21%
DLC Qualified LLLC Fixture	31	52,120.50	53,013.65	101.71%
T12/T8 U-Bend to less than 23 watt T8 LED	3	49,109.58	49,212.97	100.21%
T12/T8 (2') Lamp to 1-Lamp less than 13 watt T8 TLED	5	4,136.60	4,128.58	99.81%
2-Lamp T12/T8 Fixture to LED Qualified 1x4 Fixture	12	7,859.07	8,081.34	102.83%
Wall Switch Occupancy Sensor	7	2,138.44	2,138.28	99.99%
T12/T8 (3') Lamp to 1-Lamp less than 17 watt T8 TLED	2	657.28	656.01	99.81%

2, 3, 4-Lamp T12/T8 Fixture to LED Qualified 2x4 Fixture	47	387,475.83	394,028.49	101.69%
>= 42W CFL to <= 20W LED Fixture	9	28,857.31	29,651.12	102.75%
Four Pin Base CFL to 17 watt or less Plug in LED	11	29,759.54	33,809.09	113.61%
T12/T8 8' Fixture to 90 watt or less 8' LED fixture	24	83,296.86	81,427.55	97.76%
2-Lamp T12/T8 Fixture to LED Qualified 2x2 Fixture	6	11,283.78	10,951.89	97.06%
Ceiling or Fixture Occupancy sensor with built-in relays	12	32,619.16	31,659.13	97.06%
Sign Lighting	38	136,246.76	140,240.43	102.93%
65W Incandescent to <= 10 watt LED Fixture	2	18,798.78	21,961.89	116.83%
75-100 watt Incandescent Can to less than 20 watt LED Fixture Retrofit	9	202,377.86	244,020.83	120.58%
400 watt HID Fixture to 175 watt or less LED Fixture	12	194,290.62	196,335.35	101.05%
70-89 watt HID Fixture to 25 watt or less LED Fixture or Retrofit (Ext)	4	8,326.16	8,365.67	100.47%
T12/T8 Eight-Foot to LED	18	83,451.16	80,995.06	97.06%
T5HO Lamp to 1-Lamp less than 29 watt T5HO TLED	10	120,943.16	122,646.48	101.41%
90-100 watt HID Fixture to 30 watt or less LED Fixture or Retrofit (Ext)	5	14,261.61	14,329.28	100.47%
>= 150W Incandescent to <= 30W LED Fixture	9	435,210.36	447,182.10	102.75%
175 watt HID Fixture to 100 watt or less LED Fixture or Retrofit (Ext)	21	92,895.05	91,692.61	98.71%
175 watt HID Fixture to 100 watt or less LED Fixture (Ext, NC)	2	3,103.72	3,163.89	101.94%
250-watt HID Fixture to 140-watt or less LED Fixture	4	30,493.63	26,151.87	85.76%
150 watt HID Fixture to 50 watt or less LED Fixture or Retrofit (Ext)	7	43,739.65	45,086.51	103.08%
T5HO (4') 4-Lamp to 135 watt of less LED Fixture	2	11,736.40	10,111.76	86.16%
250 watt HID Fixture to 140 watt or less LED Fixture (Ext, NC)	1	716.46	730.35	101.94%
250 watt HID Fixture to 140 watt or less LED Fixture or Retrofit (Ext)	6	43,012.56	42,901.49	99.74%
175-watt HID Fixture to 75-watt or less LED Fixture	1	1,188.72	1,170.60	98.48%
200 watt HID Fixture to 140 watt or less LED Fixture or Retrofit (Ext)	1	1,271.56	1,277.59	100.47%
400 watt HID Fixture to 175 watt or less LED Fixture or Retrofit (Ext)	42	510,495.31	513,492.79	100.59%
T5HO (4') 6-Lamp to 165 watt of less LED Fixture	11	68,840.81	66,457.28	96.54%
320 watt HID Fixture to 160 watt or less LED Fixture or Retrofit (Ext)	1	1,755.47	1,763.80	100.47%
Sign Lighting Container	2	8,648.64	8,816.30	101.94%

1000 watt HID Fixture to 400 watt or less LED Fixture or Retrofit (Ext)	2	120,630.18	121,331.29	100.58%
Total	**471**	**3,818,500.45**	**3,900,750.23**	**102.15%**

The following table summarizes the incentive and measure costs associated with the program.

Table 5-19: Prescriptive Lighting Program Costs by Measure

Measure Type	Measure Unit Count	Incentive Costs	Measure Costs
TLED (4') Lamp to TLED (4') Lamp with 5 watt or more reduction	4,384.00	$21,920.00	$74,970.07
T12/T8 (4') Lamp to 1-Lamp less than 23 watt T8 TLED	14,892.00	$183,483.52	$328,234.54
DLC Qualified LLLC Fixture	932.00	$48,600.00	$66,198.17
T12/T8 U-Bend to less than 23 watt T8 LED	1,018.00	$15,270.00	$15,583.97
T12/T8 (2') Lamp to 1-Lamp less than 13 watt T8 TLED	169.00	$1,014.00	$5,646.00
2-Lamp T12/T8 Fixture to LED Qualified 1x4 Fixture	87.00	$2,610.00	$12,744.77
Wall Switch Occupancy Sensor	13.00	$130.00	$2,645.78
T12/T8 (3') Lamp to 1-Lamp less than 17 watt T8 TLED	12.00	$120.00	$357.16
2, 3, 4-Lamp T12/T8 Fixture to LED Qualified 2x4 Fixture	1,558.00	$77,900.00	$160,928.43
>= 42W CFL to <= 20W LED Fixture	278.00	$5,560.00	$22,980.21
Four Pin Base CFL to 17 watt or less Plug in LED	332.00	$5,248.34	$9,776.98
T12/T8 8' Fixture to 90 watt or less 8' LED fixture	371.00	$26,370.00	$60,489.04
2-Lamp T12/T8 Fixture to LED Qualified 2x2 Fixture	73.00	$1,825.00	$43,864.68
Ceiling or Fixture Occupancy sensor with built-in relays	211.00	$6,330.00	$24,489.64
Sign Lighting	2,768.00	$35,986.86	$86,597.30
65W Incandescent to <= 10 watt LED Fixture	40.00	$1,200.00	$5,388.98
75-100 watt Incandescent Can to less than 20 watt LED Fixture Retrofit	497.00	$19,880.00	$38,200.74
400 watt HID Fixture to 175 watt or less LED Fixture	156.00	$47,207.40	$58,101.71
70-89 watt HID Fixture to 25 watt or less LED Fixture or Retrofit (Ext)	25.00	$1,982.98	$3,521.62
T12/T8 Eight-Foot to LED	836.00	$20,870.69	$65,347.27
T5HO Lamp to 1-Lamp less than 29 watt T5HO TLED	1,327.00	$40,310.00	$77,172.60
90-100 watt HID Fixture to 30 watt or less LED Fixture or Retrofit (Ext)	31.00	$3,630.13	$5,644.69
>= 150W Incandescent to <= 30W LED Fixture	450.00	$33,750.00	$58,565.29
175 watt HID Fixture to 100 watt or less LED Fixture or Retrofit (Ext)	143.00	$25,061.36	$41,143.38
175 watt HID Fixture to 100 watt or less LED Fixture (Ext, NC)	5.00	$850.00	$3,210.00

250-watt HID Fixture to 140-watt or less LED Fixture	36.00	$9,140.33	$11,691.09
150 watt HID Fixture to 50 watt or less LED Fixture or Retrofit (Ext)	63.00	$11,340.00	$22,607.43
T5HO (4') 4-Lamp to 135 watt of less LED Fixture	27.00	$2,970.00	$3,730.65
250 watt HID Fixture to 140 watt or less LED Fixture (Ext, NC)	1.00	$225.00	$450.00
250 watt HID Fixture to 140 watt or less LED Fixture or Retrofit (Ext)	51.00	$11,131.85	$24,962.60
175-watt HID Fixture to 75-watt or less LED Fixture	3.00	$420.00	$1,066.60
200 watt HID Fixture to 140 watt or less LED Fixture or Retrofit (Ext)	2.00	$240.00	$543.85
400 watt HID Fixture to 175 watt or less LED Fixture or Retrofit (Ext)	369.00	$137,030.60	$309,958.65
T5HO (4') 6-Lamp to 165 watt of less LED Fixture	167.00	$23,204.00	$46,345.38
320 watt HID Fixture to 160 watt or less LED Fixture or Retrofit (Ext)	2.00	$560.00	$2,284.94
Sign Lighting Container	176.00	$2,288.00	$7,399.34
1000 watt HID Fixture to 400 watt or less LED Fixture or Retrofit (Ext)	28.00	$9,718.06	$9,718.06
Total	**31,533.00**	**$835,378.12**	**$1,712,561.61**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Prescriptive Lighting Program in the section below.

5.3.5.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Prescriptive Lighting Program. The evaluated reviewed sampled lighting measures for tracking data accuracy and also conducted research to ensure facility type was correctly assigned to each customer included in the sample. Facility type has an impact heating/cooling interactive factors as well as on lighting control savings, meaning accurate facility type assignment is essential for verified savings calculations. No major data issues were identified in the tracking data and facility type review of sampled projects.

5.3.5.2 Impact Analysis

The Evaluators calculated verified savings by using a standard engineering algorithm:

$$kWh_{savings} = \sum \left(\left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{pre} - \left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{post} \right) \times AOH \times ISR$$

Where:

- Nfixt(i), pre = Pre-retrofit number of fixtures of type i
- Nfixt(i), post = Post-retrofit number of fixtures of type i
- Wfixt(i), pre = Rated wattage of pre-retrofit fixtures of type i (varies). Self-reported.
- Wfixt(i), post = Rated wattage of post-retrofit fixtures of type i (varies). Self-reported.
- AOH = Annual operating hours for specified space type (varies). Self-reported.
- ISR = The In-Service Rate, 98.25% per the Evaluators' process analysis.

The kWh lighting savings calculated using the above equation were adjusted to take into account lighting controls, cooling interactive factors, and heating interactive factors, as necessary. Lighting control savings as well as heating/cooling interactive factors are calculated as a percentage of the kWh savings presented above, so where appropriate the Evaluators added those adjustments to determine final verified lighting savings values. Lighting control percentage adjustments as well as heating/cooling interactive factors vary based on fuel type, lighting installation location, and facility type. Fuel type and whether or not lighting controls were installed were included in tracking data. The specific percentage adjustments used in savings calculations were sourced from the RTF Non Residential Lighting calculator workbook.

5.3.5.3 Verified Savings

The verified savings for the program are 3,900,750.23 kWh with a realization rate of 102.15%. The Evaluators used the RTF Non Residential Lighting[18] calculator and protocol to calculate savings and assigned a survey-based in-service rate to those savings values. This methodology resulted in slightly higher verified savings than expected. This difference in expected and verified savings is primarily due to differences in assign facility type which contributes to calculated lighting savings. While expected savings calculations did not seem to take into account an in-service rate, the in-service rate was 98.25% meaning the impact on overall savings was minimal. Broadly, expected and verified savings matched closely for this program.

[18] https://rtf.nwcouncil.org/standard-protocol/non-residential-lighting-retrofits/

5.3.6 Small Business Lighting Program

The Small Business Lighting Program is a non-residential direct install lighting program that offers lighting and controls assessments, equipment and installation for commercial customers on rate schedules 11 or 12. To participate, businesses fill out an application on Avista's website and then are contacted by a program partner. An on-site assessment is scheduled to identify potential lighting and sensor upgrades and eligibility is verified. Measures are then installed at low/no cost to the participant and incentivized at $0.40 - $0.65/kWh. Table 5-20 summarizes the measures offered.

Table 5-20: Small Business Lighting Program Measures

Measure	Impact Analysis Methodology
LED Fixture - replacing FLT12, 400W - 1000W w & w/o OS	Prescriptive Calculations with RTF and Custom Inputs
LED Fixture - replacing FLT5: 2ft to 8ft, 14W - 54W w & w/o OS	
LED Fixture - replacing FLT8: 2ft to 8ft, 17W - 59W w & w/o OS	
LED Fixture - replacing Halogen/Incandescent lamp, 150W - 1500W w & w/o OS	
LED Fixture - replacing Halogen/Incandescent lamp, 20-150W w & w/o OS	
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, < 100W	
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W w & w/o OS	
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W w & w/o OS	
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W w & w/o OS	
LED Fixture - replacing T12: 2ft - 8ft, 34W - 80W w & w/o OS	
LED Replacement Lamp - replacing CFL Screw-in/Pin-based, 8W - 40W	
LED Replacement Lamp - replacing FLT12: 2ft to 8ft, 34W - 80W w & w/o OS	
LED Replacement Lamp - replacing FLT5: 2ft to 8ft, 17W - 54W w & w/o OS	
LED Replacement Lamp - replacing FLT8: 2ft to 8ft, 17W - 59W w & w/o OS	
LED Replacement Lamp - replacing Halogen/Incandescent lamp, 150-1500W	
LED Replacement Lamp - replacing Halogen/Incandescent lamp, 20-150W w & w/o OS	
LED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, < 100W	
LED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	
LED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	
ALED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	
LED Retrofit Kit - replacing CFL, 8W - 40W	
LED Retrofit Kit - replacing FLT12, 400W - 1000W w & w/o OS	
LED Retrofit Kit - replacing FLT12: 2ft to 8ft, 34W - 80W w & w/o OS	
LED Retrofit Kit - replacing FLT5: 2ft to 8ft, 14W - 54W w & w/o OS	
LED Retrofit Kit - replacing FLT8: 2ft to 8ft, 17W - 59W w & w/o OS	
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W	
LED Retrofit Kit – replacing Halogen/Incandescent lamp, 20-150W w & w/o OS	
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W with OCC w & w/o OS	
LED Retrofit Kit - replacing Metal Halide/High Pressure Sodium lamp, < 100W	
LED Retrofit Kit - replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	
LED Retrofit Kit - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	
LED Retrofit Kit - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	

Small Business Lighting Program impact evaluation results by measure are summarized in Table 5-21.

Table 5-21: Small Business Lighting Program Verified Electric Savings

Measure Type	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	150	631,033.03	610,686.05	96.78%
LED Replacement Lamp - replacing FLT8: 2ft to 8ft, 17W - 59W	95	507,476.14	482,518.62	95.08%
LED Fixture - replacing Halogen/Incandescent lamp, 20-150W	340	1,422,437.15	1,473,820.55	103.61%
LED Fixture - replacing FLT8: 2ft to 8ft, 17W - 59W	327	3,910,184.20	3,858,998.64	98.69%
LED Fixture - replacing CFL Screw-in/Pin-based, 8W - 40W	16	120,675.14	112,582.83	93.29%
LED Retrofit Kit - replacing FLT8: 2ft to 8ft, 17W - 59W	31	430,997.80	465,213.84	107.94%
LED Replacement Lamp - replacing FLT12: 2ft to 8ft, 34W - 80W	53	238,856.10	220,332.08	92.24%
LED Retrofit Kit - replacing CFL, 8W - 40W	5	31,879.00	37,298.42	117.00%
LED Fixture - replacing FLT5: 2ft to 8ft, 14W - 54W	65	885,892.12	908,569.39	102.56%
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W	134	671,040.63	740,582.97	110.36%
LED Fixture - replacing FLT8: 2ft to 8ft, 17W - 59W with OCC	24	596,421.75	636,102.61	106.65%
LED Fixture - replacing T12: 2ft - 8ft, 34W - 80W	299	2,652,104.59	2,442,921.40	92.11%
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, < 100W	9	23,348.84	24,218.18	103.72%
LED Fixture - replacing Halogen/Incandescent lamp, 20-150W with OCC	9	16,733.27	20,691.87	123.66%
LED Replacement Lamp - replacing FLT5: 2ft to 8ft, 17W - 54W	16	122,683.77	106,734.88	87.00%
LED Replacement Lamp - replacing FLT8: 2ft to 8ft, 17W - 59W with OCC	2	375.14	362.47	96.62%
LED Fixture - replacing Halogen/Incandescent lamp, 150W - 1500W with OCC	2	2,849.81	2,955.92	103.72%
LED Fixture - replacing Halogen/Incandescent lamp, 150W - 1500W	70	1,828,839.71	2,048,494.31	112.01%
LED Retrofit Kit - replacing FLT12: 2ft to 8ft, 34W - 80W	18	270,725.02	281,631.82	104.03%
LED Fixture - replacing T12: 2ft - 8ft, 34W - 80W with OCC	38	258,201.49	296,030.18	114.65%
LED Replacement Lamp - replacing Halogen/Incandescent lamp, 20-150W	6	76,532.84	82,924.44	108.35%
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	63	1,370,179.94	1,414,404.97	103.23%
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	118	1,272,321.39	1,306,642.48	102.70%

LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	6	95,368.32	92,148.47	96.62%
LED Fixture - replacing FLT5: 2ft to 8ft, 14W - 54W with OCC	12	198,938.10	211,406.63	106.27%
LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	1	2,340.67	2,261.64	96.62%
LED Replacement Lamp - replacing CFL Screw-in/Pin-based, 8W - 40W	1	1,746.53	1,687.56	96.62%
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W with OCC	1	1,949.91	2,110.31	108.23%
LED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	1	2,652.21	2,562.67	96.62%
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W with OCC	1	257,544.00	254,968.56	99.00%
LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	1	6,779.45	6,550.56	96.62%
LED Retrofit Kit - replacing FLT5: 2ft to 8ft, 14W - 54W	3	398,272.94	431,033.99	108.23%
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W with OCC	6	270,299.71	363,414.70	134.45%
LED Retrofit Kit - replacing FLT12: 2ft to 8ft, 34W - 80W with OCC	1	14,675.14	20,104.94	137.00%
Total	**1,924**	**18,592,355.85**	**18,962,968.96**	**101.99%**

The following table summarizes the incentive and non-incentive costs associated with the program.

Table 5-22: Small Business Lighting Program Costs by Measure

Measure Type	Measure Unit Count	Incentive Costs	Measure Costs
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	850.00	$389,974.59	$408,548.64
LED Replacement Lamp - replacing FLT8: 2ft to 8ft, 17W - 59W	5,869.00	$197,819.17	$209,066.39
LED Fixture - replacing Halogen/Incandescent lamp, 20-150W	2,765.00	$921,486.16	$957,974.12
LED Fixture - replacing FLT8: 2ft to 8ft, 17W - 59W	9,194.00	$2,471,064.47	$2,518,258.26
LED Fixture - replacing CFL Screw-in/Pin-based, 8W - 40W	698.00	$78,425.04	$82,790.22
LED Retrofit Kit - replacing FLT8: 2ft to 8ft, 17W - 59W	944.00	$189,322.91	$200,760.29
LED Replacement Lamp - replacing FLT12: 2ft to 8ft, 34W - 80W	2,045.00	$90,058.86	$95,374.87
LED Retrofit Kit - replacing CFL, 8W - 40W	168.00	$14,233.68	$15,047.77
LED Fixture - replacing FLT5: 2ft to 8ft, 14W - 54W	1,233.00	$572,844.58	$587,561.61
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W	2,389.00	$290,620.65	$357,598.47

LED Fixture - replacing FLT8: 2ft to 8ft, 17W - 59W with OCC	1,306.00	$357,230.84	$392,608.12
LED Fixture - replacing T12: 2ft - 8ft, 34W - 80W	5,048.00	$1,713,111.97	$1,740,640.44
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, < 100W	51.00	$15,176.75	$17,525.47
LED Fixture - replacing Halogen/Incandescent lamp, 20-150W with OCC	32.00	$10,817.27	$10,900.94
LED Replacement Lamp - replacing FLT5: 2ft to 8ft, 17W - 54W	1,161.00	$47,828.59	$52,157.50
LED Replacement Lamp - replacing FLT8: 2ft to 8ft, 17W - 59W with OCC	16.00	$127.64	$410.00
LED Fixture - replacing Halogen/Incandescent lamp, 150W - 1500W with OCC	7.00	$1,832.77	$1,832.77
LED Fixture - replacing Halogen/Incandescent lamp, 150W - 1500W	1,066.00	$835,584.90	$846,255.57
LED Retrofit Kit - replacing FLT12: 2ft to 8ft, 34W - 80W	626.00	$118,359.76	$126,191.23
LED Fixture - replacing T12: 2ft - 8ft, 34W - 80W with OCC	604.00	$153,362.65	$199,292.51
LED Replacement Lamp - replacing Halogen/Incandescent lamp, 20-150W	347.00	$30,425.23	$30,425.23
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	619.00	$764,435.52	$785,941.99
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	908.00	$807,554.09	$835,647.45
LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 100W - 250W	109.00	$38,143.74	$40,313.00
LED Fixture - replacing FLT5: 2ft to 8ft, 14W - 54W with OCC	251.00	$114,129.98	$120,055.54
LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	2.00	$936.27	$936.27
LED Replacement Lamp - replacing CFL Screw-in/Pin-based, 8W - 40W	11.00	$698.61	$698.61
LED Retrofit Kit - replacing Halogen/Incandescent lamp, 20-150W with OCC	7.00	$877.46	$1,267.44
LED Replacement Lamp - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W	3.00	$1,000.00	$1,000.00
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W with OCC	56.00	$167,043.60	$167,043.60
LED Replacement Lamp - E39 replacing Metal Halide/High Pressure Sodium lamp, 400W - 1000W	6.00	$2,711.78	$2,711.78
LED Retrofit Kit - replacing FLT5: 2ft to 8ft, 14W - 54W	338.00	$179,222.82	$179,222.82
LED Fixture - replacing Metal Halide/High Pressure Sodium lamp, 320W - 400W with OCC	159.00	$144,030.29	$183,283.60
LED Retrofit Kit - replacing FLT12: 2ft to 8ft, 34W - 80W with OCC	28.00	$6,379.27	$6,891.00
Total	**38,916.00**	**$10,726,871.91**	**$11,176,233.52**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Small Business Lighting Program in the section below.

5.3.6.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Small Business Lighting Program. The evaluated reviewed sampled lighting measures for tracking data accuracy and also conducted research to ensure facility type was correctly assigned to each customer included in the sample. Facility type has an impact heating/cooling interactive factors as well as on lighting control savings, meaning accurate facility type assignment is essential for verified savings calculations. No major data issues were identified in the tracking data and facility type review of sampled projects.

5.3.6.2 Impact Analysis

The Evaluators calculated verified savings by using standard engineering algorithms:

Lighting Fixtures

$$kWh_{savings} = \sum \left(\left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{pre} - \left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{post} \right) \times AOH \times ISR$$

Where:

- Nfixt(i), pre = Pre-retrofit number of fixtures of type i
- Nfixt(i), post = Post-retrofit number of fixtures of type i
- Wfixt(i), pre = Rated wattage of pre-retrofit fixtures of type i (varies). Self-reported.
- Wfixt(i), post = Rated wattage of post-retrofit fixtures of type i (varies). Self-reported.
- AOH = Annual operating hours for specified space type (varies). Self-reported.
- ISR = The In-Service Rate, assumed to be 100.00% as measures are direct install.

The kWh lighting savings calculated using the above equation were adjusted to take into account lighting controls, cooling interactive factors, and heating interactive factors, as necessary. Lighting control savings as well as heating/cooling interactive factors are calculated as a percentage of the kWh savings presented above, so where appropriate the Evaluators added those adjustments to determine final verified lighting savings values. Lighting control percentage adjustments as well as heating/cooling interactive factors vary based on fuel type, lighting installation location, and facility type. Fuel type and whether or not lighting controls were installed were included in tracking data. The specific percentage adjustments used in savings calculations were sourced from the RTF Non Residential Lighting calculator workbook.

5.3.6.3 Verified Savings

The verified savings for the program are 18,962,968.96 kWh with a realization rate of 101.99%, as displayed in Table 5-21. This difference in expected and verified savings is primarily due to differences in assigned facility type which contributes to calculated lighting savings. Broadly, expected and verified savings matched closely leading to a realization rate very close to 100%.

5.3.7 Non Residential Shell Program

The Non Residential 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.

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. 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 5-23 summarizes the measures rebated in PY2025 under this program.

Table 5-23: Non Residential Shell Program Measures

Measure	Impact Analysis Methodology
Attic Insulation	Illinois TRM v12.0 Section 4.8.2

The following table summarizes the verified electric energy savings for the Non Residential Shell Program impact evaluation.

Table 5-24: Non Residential Shell Program Verified Electric Savings

Measure	Project Count	Measure Unit Count	Expected Savings (kWh)	Verified Savings (kWh)
Attic ≤ R11 to R45 +	2	14,280.42	10,120.54	70.87%
Total	**2**	**14,280.42**	**10,120.54**	**70.87%**

The following table summarizes the incentive and non-incentive costs associated with the program.

Table 5-25: Non Residential Shell Program Costs by Measure

Measure	Square Footage Installed	Incentive Costs	Measure Costs
Attic ≤ R11 to R45 +	26,094.00	$13,883.38	$29,800.00
Total	**26,094.00**	**$13,883.38**	**$29,800.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Non Residential Shell Program in the section below.

5.3.7.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Non Residential Shell Program. The Evaluators review all rebate applications to cross-verify tracking data inputs. Data points checked between project applications and program tracking data include R-levels, square footage of installation, HVAC configuration and measure cost values. Below, Table 5-26 shows the project population, the number of projects checked and the overall precision.

Table 5-26: Non Residential Shell Program Verification Precision

Population	Sampled	Precision
2	2	0.0%

All electric projects provided in the program tracking data matched data verified in the rebate application, and no adjustments to any savings algorithm inputs were necessary. The Evaluators found all rebate equipment met or exceeded the measure efficiency requirements for the Non Residential Shell Program.

5.3.7.2 Impact Analysis

This section summarizes the verified savings results for the Non Residential Shell Program. The Evaluators calculated verified savings for the insulation measures using the Illinois TRM v12.0 Section 4.8.2[19]. The Illinois TRM was selected because it provides engineering algorithms to calculate savings for commercial roof insulation and commercial wall insulation measures. To estimate savings for attic insulation measures, the Evaluators applied the algorithm for commercial roof insulation.

The savings algorithms for attic required weather inputs and HVAC equivalent full load hours for various building types. The Evaluators calculated weather inputs in accordance with the Illinois TRM for weather the stations in Sandpoint, ID. Equivalent full load heating hours by building type were drawn from Idaho Power TRM v3.2[20].

Illinois TRM v12.0 Section 4.8.2 provides the following equations to calculate roof insulation savings:

$$\Delta kWh = \Delta kWh_{cooling} + \Delta kWh_{heating}$$

Where:

$$\Delta kWh_{cooling} = \left(\frac{1}{R_{existing}} - \frac{1}{R_{new}}\right) \times \frac{Area \times EFLH_{cooling} \times \Delta T_{FL,cooling}}{1{,}000 \times \eta_{cooling}}$$

$$\Delta kWh_{heating} = \left(\frac{1}{R_{existing}} - \frac{1}{R_{new}}\right) \times \frac{Area \times EFLH_{heating} \times \Delta T_{FL,heating}}{3{,}412 \times \eta_{heating}}$$

- $R_{existing}$ = R-value of the existing insulation
- R_{new} = R-value of the installed insulation
- $Area$ = Surface Area of the roof in square feet
- $EFLH_{cooling}$ = Equivalent Full Load Cooling Hours in the Building
- $\Delta T_{FL,cooling}$ = Temperature difference during cooling season using a 55° F temperature setpoint
- $1{,}000$ = Conversion from BTU to kBTU
- $\eta_{cooling}$ = Efficiency of existing cooling system, assumed to be SEER 13
- $EFLH_{heating}$ = Equivalent Full Load Cooling Hours in the Building
- $\Delta T_{FL,heating}$ = Temperature difference during heating season using a 55° F temperature setpoint
- $3{,}412$ = Conversion from BTU to kWh
- $\eta_{heating}$ = Efficiency of existing furnace, assumed to be 0.78

[19] https://www.ilsag.info/wp-content/uploads/IL-TRM-Version-12.0-Volumes-1-4-Compiled-Final.pdf

[20] https://docs.idahopower.com/pdfs/EnergyEfficiency/Reports/2020TRM.pdf

5.3.7.3 Verified Savings

The verified savings for the program are 10,120.54 kWh with a realization rate of 70.87%, as displayed in Table 5-24. This low realization rate is explained by the fact that the Evaluators employed an engineering equation with weather inputs specific to Sandpoint, ID to assess measure savings. The integration of actual 2025 weather data into the verified analysis likely contributed to lower savings values than generalized estimates used by Avista for expected savings.

5.3.8 Site Specific Program

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 non-residential electric offerings. The program approach strives for a flexible response to energy efficiency projects that have demonstrable kWh savings within program criteria. The majority of 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.

The following table summarizes the verified electric energy savings for the Site-Specific Program impact evaluation.

Table 5-27: Site-Specific Program Verified Electric Savings

Type of Project	Project Count	Expected Savings (kWh)	Verified Savings (kWh)	Realization Rate
Lighting	6	101,225.00	91,700.23	90.59%
Non-Lighting/Other	9	9,746,501.06	9,419,907.14	96.65%
Total	**15**	**9,847,726.06**	**9,511,607.37**	**96.59%**

The Site-Specific Program displayed verified savings of 9,511,607.37 kWh with a realization rate of 96.59% against the expected savings for the program.

Table 5-28: Site-Specific Program Costs

Type of Project	Incentive Costs	Measure Costs
Lighting	$19,639,61	$72,226.27
Non-Lighting/Other	$1,952,256.22	$4,971,840.85
Total	**$1,971,895.83**	**$5,044,067.12**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Site-Specific Program in the section below.

5.3.8.1 Sample Design

Given the dramatic variance in energy savings associated with different Site Specific programs, the Evaluators employed a random stratified sampling approach in which programs were split into strata based on kWh energy usage buckets and samples were selected from each of those strata to produce a representative sample that met 90/10 precision goals. The participant population for the Site-Specific Program was divided into four strata. Table 5-29 summarizes the strata boundaries and sample frames for the Site-Specific Program.

Table 5-29: Site-Specific Program Sample Design

Statistic Description	Stratum 1	Stratum 2	Stratum3	Stratum 4	Totals
Strata boundaries (kWh)	< 4,500	4,501 – 14,500	14,501 – 360,000	> 360,000	
Number of projects	2	4	5	4	**15**
Total kWh savings	7,563.29	38,329.19	532,884.74	9,268,949.06	**9,847,726.28**
Average kWh Savings	3,781.65	9,582.30	106,576.95	2,317,237.27	**656,515.09**
Standard deviation of kWh savings	773.07	3,404.26	142,010.21	1,418,235.30	**1,230,134.70**
Coefficient of variation	0.204	0.355	1.332	0.612	**1.874**
Final design sample	**0**	**1**	**2**	**4**	**7**

All four sites with savings exceeding 360,000 kWh were specifically selected for verification and analysis. The verified sampling precision achieved from this sample is 6.48% at 90% confidence.

5.3.8.2 Project Document Review

Once representative projects were selected, the Evaluators obtained all project-related documentation for review. These documents typically included equipment specification sheets, building characteristics, calculators, invoices, project photos and trending data. This information allowed the Evaluators to replicate claimed savings estimates and develop M&V plans to be used in assessing verified savings and collecting on-site data. Using project-specific M&V plans, the Evaluators visited sampled to verify measure installation and operating parameters, as well as building parameters such as square footage and HVAC configurations.

5.3.8.3 Impact Approaches

For lighting projects, the evaluators primarily relied on an Option A, engineering analysis approach. The following equation shows the main calculation used to assess verified savings for lighting projects.

$$kWh_{savings} = \sum \left(\left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{pre} - \left[N_{fixt(i)} \times \frac{W_{fixt(i)}}{1000} \right]_{post} \right) \times AOH \times IEF$$

Where:

- $N_{fixt(i)}$, pre = Pre-retrofit number of fixtures of type i
- $N_{fixt(i)}$, post = Post-retrofit number of fixtures of type i
- $W_{fixt(i)}$, pre = Rated wattage of pre-retrofit fixtures of type i (Standard Wattage Table developed from RTF materials or included in project materials)
- $W_{fixt(i)}$, post = Rated wattage of post-retrofit fixtures of type i (Taken from project spec sheets)
- AOH = Annual operating hours for specified space type (Varies. Collected during M&V site visits)

- IEF = Site-Specific Interactive effects factor specific to building and Site-Specific configuration (developed from RTF or project materials)

For non-lighting projects, the Evaluators employed IPMVP Option A-C approaches to calculated verified savings associated with the Site Specific programs. Evaluators selected the most appropriate IPMVP-approved methodology based on available data, the percentage of facility savings associated with the installed measure, and the complexity of the energy efficiency equipment installed.

5.3.8.4 Site-Level Realization

Verified savings were developed for each sampled site. The realization rates for sites within each stratum were then applied to the non-sampled sites within their respective stratum. Table 5-30 presents sampled realization at the site level.

Table 5-30: Site-Specific Expected, Adjusted and Verified kWh Savings by Sampled Project

Project ID	Expected kWh Savings	Verified kWh Savings	Realization Rate
SSOP_78933	4,179,306.06	4,179,306.00	100.00%
SSOP_113721	2,371,142.00	2,371,142.00	100.00%
SSOP_117346	1,962,778.00	1,962,778.00	100.00%
SSOP_151517	755,723.00	430,874.00	57.01%
SSOP_140650	62,688.00	75,090.00	119.78%
SSLP_152970	23,402.00	17,185.00	73.43%
SSLP_152961	6,686.00	5,804.00	86.81%
Totals:	**9,361,725.00**	**9,042,179.00**	**96.59%**

The overall PY2025 Site-Specific Program in total displays a total of 9,042,179 kWh verified electric energy savings for sampled projects in the Idaho service territory, as displayed in Table 5-30.

5.3.8.5 Discussion of Non-100% Realization in Sampled Projects

Below are brief explanations of differences between claimed and verified savings for projects with realization rates that are not 100%.

- **SSOP_151517 –** The energy savings calculation information provided utilized an engineering methodology that could not be reversed engineered with the given documentation. Therefore, the Evaluators proceeded to conduct an IPMVP Option B analysis by utilizing the *AR TRM v9.1* measure for Compressor Replacement. The analysis then yielded a realization rate of 57.01% in kWh savings.
- **SSOP_140650 –** The energy savings were calculated by conducting an IPMVP Option A analysis utilizing the Non-Residential Lighting Retrofits Protocol from the *Regional Technical Forum*. The analysis then yielded a realization rate of 119.78% in kWh savings.
- **SSOP_152970 –** The energy savings were calculated by conducting an IPMVP Option A analysis utilizing the Non-Residential Lighting Retrofits Protocol from the *Regional Technical Forum*. The analysis then yielded a realization rate of 73.43% in kWh savings.

- **SSOP_152961** – The energy savings were calculated by conducting an IPMVP Option A analysis utilizing the Non-Residential Lighting Retrofits Protocol from the *Regional Technical Forum*. The analysis then yielded a realization rate of 86.81% in kWh savings.

6. Appendices

6.1 Appendix A: Billing Analysis Results

This appendix provides additional details on the billing analyses conducted for each program. A billing analysis was completed for measures that had at least 75 customers with single-measure installations. This ensured that measures would have a sufficient sample size after applying PSM data restrictions (e.g. sufficient pre- and post-period data). Analyses were run focusing specifically on the Idaho service territory. The billing analysis on individual measures resulted in statistically significant electric impacts for the Home Energy Audit Program The following section describes the analysis.

6.1.1 Home Energy Audit Program

The results of the billing analysis for the Home Energy Audit are provided below. The Evaluators identified 98 customers who had only participated in the Home Energy Audit program and no other energy efficiency programs. These customers were included in a treatment cohort to identify the savings associated with the Home Energy Audit program in households with electric heating equipment.

The Evaluators were successful in creating a matched cohort for the program with sufficient participation. Customers were matched on zip code and their average pre-period seasonal usage, including summer, fall, winter, and spring for each control and treatment household. The Evaluators were provided with a considerable pool of control customers to draw upon. The Evaluators conducted propensity score matching (PSM) to match treatment customers to non-participant control customers to develop cohorts with statistically similar pre-period energy usage.

The Evaluators performed three tests to determine the success of PSM:

1. *t*-test on pre-period usage by month
2. Joint chi-square test to determine if any covariates are imbalanced
3. Standardized difference test for each covariate employed in matching

All tests confirmed that PSM performed well for each measure. After PSM, t-tests displayed no more than 2 months with significantly different energy usage at the 95% alpha indicating treatment and control pre-period energy usage were statistically similar.

The table below provides annual savings per customer and verified program savings for the Home Energy Audit Program for the Post-Program Regression (PPR) model. Treatment customers included in the billing analysis participated in this measure only, and therefore no double-counted savings from other programs need to be accounted for. The total program savings were 32,995.13 kWh saved annually for treatment customers included in the regression analysis, or 4.41% of annual electric household consumption.

Table 6-1: Regression Savings, Home Energy Audit Program

Annual Savings per Customer (kWh)	Treatment Customers	Program Verified Savings (kWh)	Regression Estimate p-value	Adjusted R-Squared	Model
804.76	41	32,995.13	0.003	0.893	PPR

6.2 Appendix B: Site Specific M&V Plans and Supplementary Information

6.2.1 Site Specific M&V Plans

6.2.1.1 SSOP_78933 (University of Idaho)

Summary

An energy efficiency project qualified for incentives as part of Avista's commercial custom install program. The project includes the installation of a micro steam turbine on a university campus. The system utilizes pressure release valves to power a steam turbine and generate electricity in what would otherwise be wasted steam production.

M&V Methodology

Motors: Trend data will be collected, and savings will be determined by the amount of electricity being generated.

Questions To Ask

- Is there trend data available? If yes, may we have access? Ideally, we need at least a year of data.
- Does this system only utilize waste steam that would otherwise be vented, or does it generate electricity at other times?
- Is this system impacted by any seasonal factors, such as weather or student populations? Will that show up in trend data?
- Verify how many steam turbines were installed
- What is the total peak capacity the steam turbines can generate?
- Do the steam turbines have any other impacts than power generation that would impact energy savings?

6.2.1.2 SSOP_113721 (Clearwater Paper Corporation)

Summary

An energy efficiency project qualified for incentives as part of Avista's commercial custom install program. The project included the retrofit of DC motors with electronically commutated and variable frequency drive motors throughout the project site, an industrial facility.

M&V Methodology

Motors: Energy savings will be determined by using trend data obtained from the project site, and comparing production data with the motor power usage.

Questions To Ask

- How many motors were installed and how many of each type (IE, 2 ECMs, 1 VFD)
- What is the total kW/HP of installed motors and baseline motors (if available)?
- What motor types were replaced?
- Is there any trend data, and may we have access to it? Ideally 1 year of efficient condition data, and 1-2 years minimum of the baseline motor systems
- Is there a specific production process these motors are impacted by? May we have access to that data to normalize motor trend data with?
- Are there any other factors that may impact motor operation, such as outdoor weather conditions?

6.2.1.3 SSOP_151517 (Stimson Lumber Company)

Summary

Stimson Lumber Company participated in Avista's energy efficiency program, installing variable speed controls on one of the formerly fixed speed air compressors servicing the facility. There are (2) rotary-screw air compressors to serve the facility demands, the primary compressor is undersized, so the secondary compressor operates to satisfy compressed air demand for the facility. The installation of variable speed controls for the secondary compressors to reduce capacity while maintaining compressed air demand.

M&V Methodology

Compressed Air: Ideally air compressor trend data is available for the air compressor. This data will be used to determine energy consumption over the monitored period. CAGI data sheet for the baseline compressor will be used in conjunction with trend data to determine equivalent baseline consumption during monitored period. If trend data is not available, then air consumption data may be used in its stead, with CAGI data sheets used to determine energy consumption based on compressor capacity.

Questions To Ask

- What size are the compressors?
- What is the annual uptime of the air compressors? Are there any instances where the primary compressor fulfills compressed air demand by itself?
- Is compressor demand consistent throughout the year or are there any seasonal demand changes?
- Request compressor trend data. Ideally would like both pre/post installation. If trend data not available, then request air consumption data.

6.2.1.4 SSOP_140650 (Trader Joes Company)

Summary

This is a grocery store that constructed (17) 47W 2x4 LED fixtures, and (5) 25W 2x2 LED fixtures. The facility also appears to have retrofitted 162 display case T8 fluorescent fixtures with (162) LED display lights.

Data Collection

- Verify installation of all fixtures (see tables). Please take verification photos
- Confirm the location, quantity, and type of new constructed lighting and retrofitted lighting. Make sure we only have this site's information since it seems lighting is also being installed with another tenant.
- Confirm baseline fixtures type/wattage with site contact and ask if any of the old bulbs are available for photo.
- Verify model numbers of new fixtures if possible.
- Collect HVAC equipment type (cooling and heating)
- Confirm if controls are present. (i.e., Sensors, switches, etc.)
- Collect lighting schedules for all rooms where the retrofit was performed.

Lighting Fixture Verification

Lighting Zone	Area	Fixture	Qty	Control	HVAC	Notes
	Store	TDJ-24CZ2-60-UNV-EL14W L850-CD1-U	17			
	Store	TDJ-22CZ2-32-UNV L850-CD1-U	5			
	Store	TDJ-4SNLED-LD5-40SL-FUNV-L850-CD1-U	162			

Key
Control Types: Manual Switch (SW), Occupancy Sensor (OS), No Switch/Panel control (PN), Photocell (PC), Daylight Control (DS), or Programmed (EMS)
HVAC types: None, Air Conditioned (AC), Heat Pump (HP), gas, (gas) Refrigerated (Ref), or Freezer (FR). Ex: air conditioned and gas heated = AC/gas

6.2.1.5 SSOP_152970 (Jacklin Land Company)

Summary

A manufacturing facility performed a retrofit of (35) 400W inefficient high bay metal halide lights with (35) 240W LED high bay lights. The fixtures are installed in Warehouse OF2.

Data Collection

- Confirm if lights operate on a switch, timer, or sensor. (Note – this site has a sensor recorded on the invoice, please confirm if the sensor is used for this application).
- Confirm building type and location of installed lighting.
- Collect HVAC equipment type (heating and cooling)
- Verify installation of all fixtures (see tables). Please take verification photos as well.
- Confirm baseline fixtures type/wattage with site contact and ask if any of the old bulbs are available for photo.
- Verify model numbers of new fixtures if possible.
- Collect lighting schedules for all rooms where the retrofit was performed.

Lighting Fixture Verification

Lighting Zone	Area	Fixture	Qty	Control	HVAC	Notes
	Warehouse OF2	GT-UFO3-240WJT2A1-BH40K	35			

Key
Control Types: Manual Switch (SW), Occupancy Sensor (OS), No Switch/Panel control (PN), Photocell (PC), Daylight Control (DS), or Programmed (EMS)
HVAC types: None, Air Conditioned (AC), Heat Pump (HP), gas, (gas) Refrigerated (Ref), or Freezer (FR). Ex: air conditioned and gas heated = AC/gas

6.2.1.6 SSOP_152961 (Raycap Incorporated)

Summary

This is a manufacturing facility that completed an interior lighting retrofit on its facility.

Data Collection

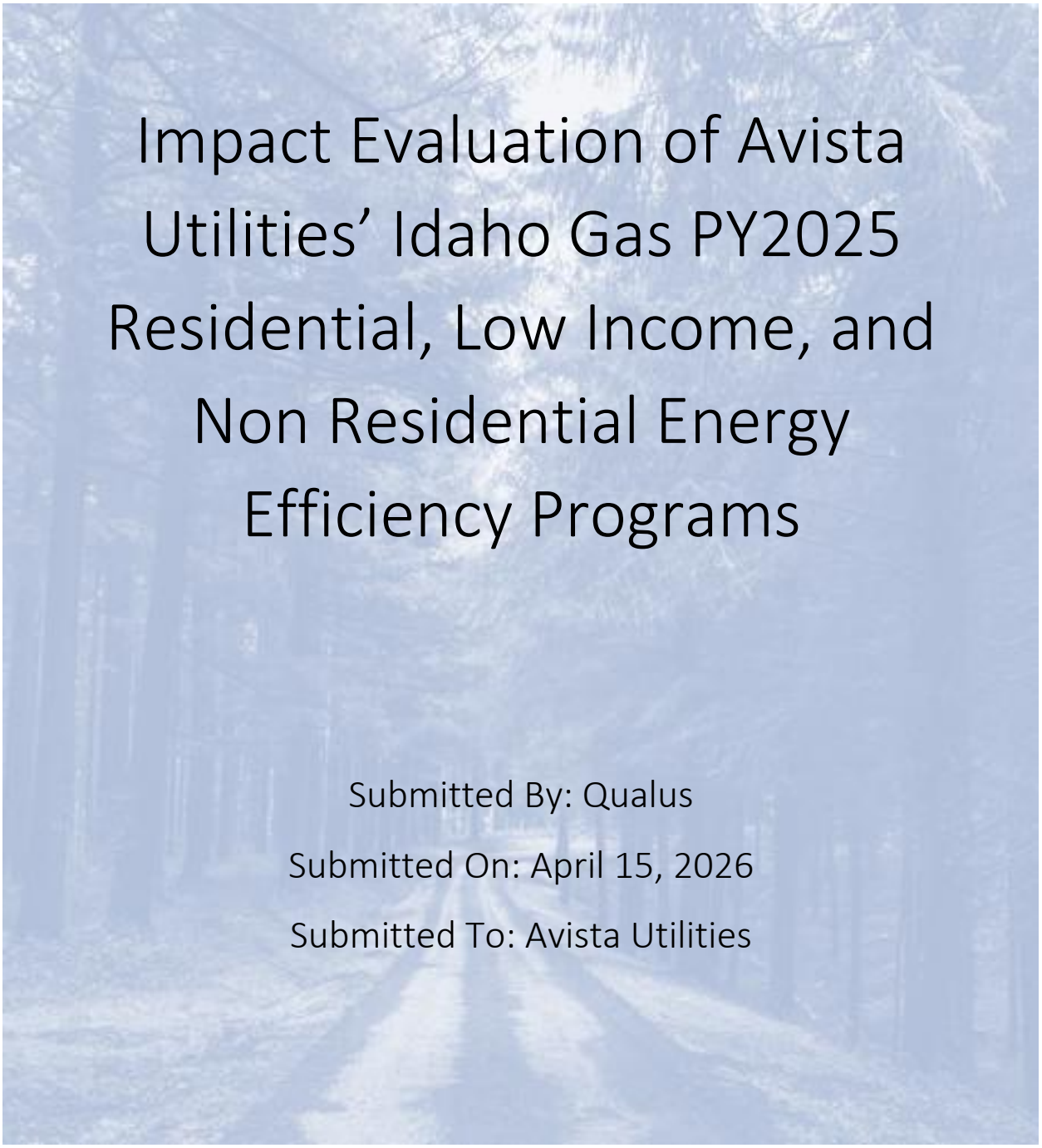
- Verify installation of all fixtures (see tables)
- Take verification photos of new lighting fixtures
- Collect HVAC equipment type
- Collect hours of operation by fixture set and whether the lighting is in a conditioned area or not (tables)

Lighting Fixture Verification

Lighting Zone	Area	Fixture	Qty	Control	HVAC	Notes
	Warehouses (indoor)	GT-UFO3c-240WJT2A1-ab40K	10	none		

Key
Control Types: Manual Switch (SW), Occupancy Sensor (OS), No Switch/Panel control (PN), Photocell (PC), Daylight Control (DS), or Programmed (EMS)
HVAC types: None, Air Conditioned (AC), Heat Pump (HP), gas, (gas) Refrigerated (Ref), or Freezer (FR). Ex: air conditioned and gas heated = AC/gas

Appendix B: 2025 Natural Gas Impact Evaluation Report



Impact Evaluation of Avista Utilities' Idaho Gas PY2025 Residential, Low Income, and Non Residential Energy Efficiency Programs

Submitted By: Qualus

Submitted On: April 15, 2026

Submitted To: Avista Utilities

Qualus
100 Colonial Center Parkway, Suite 400
Lake Mary, FL 32746

Avista Utilities
1411 E. Mission Ave.
Spokane, WA 99252

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1. Executive Summary

This report is a summary of the impact evaluation of Avista Utilities' (Avista) 2025 program year (PY2025) Residential, Low Income, and Non Residential Gas Energy Efficiency Portfolio in the Idaho service territory. The evaluation, measurement, and verification (EM&V) of PY2025 Idaho Gas portfolio was administered by Qualus, a leading pure-play power services firm. (herein referred to as the "Evaluators").

1.1 Savings Results

The Evaluators conducted an impact evaluation for Avista's Residential, Low Income, and Non Residential programs for PY2025. The Residential portfolio savings amounted to 163,004.90 therms with a 93.90% realization rate. The PY2025 Low Income portfolio savings amounted to 3,832.95 therms for a realization rate of 99.13%. Of note, the Evaluators also assessed PY2024 savings associated with the Low Income program. The PY2025 Non Residential portfolio savings amounted to 31,143.27 therms with 97.83% realization rate. The Evaluators summarize the Residential, Low Income, and Non Residential portfolio verified savings in Table 1-1 through Table 1-3, respectively.

Table 1-1: Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate	Incentive Costs
Appliances	283	5,594.57	4,123.11	73.70%	$29,194.29
ENERGY STAR Homes	2	267.96	300.96	112.32%	$1,200.00
Fuel Conversion	11	-5,403.00	-5,403.00	100.00%	$0.00
Home Energy Audit	190	0.00	0.00	NA	$0.00
Residential Midstream	1,891	147,030.50	142,774.86	97.11%	$738,100.00
Residential Shell	631	26,097.37	21,208.97	81.27%	$439,431.49
Residential Total	**3,008**	**173,587.40**	**163,004.90**	**93.90%**	**$1,207,925.78**

Table 1-2: Low Income Verified Impact Savings by Year

Program Year	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate	Incentive Costs
2024	39	1,380.11	1,283.79	93.02%	$186,029.73
2025	83	3,866.78	3,832.95	99.13%	$476,683.88
Total	**122**	**5,246.89**	**5,116.74**	**97.52%**	**$662,713.61**

Table 1-3: Non Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate	Incentive Costs
Non Residential Midstream	79	28,201.96	28,136.73	99.77%	$106,564.00
Non Residential Shell	2	628.42	168.53	26.82%	$5,909.12
Site Specific - Other	2	3,003.00	2,838.00	94.51%	$10,508.75
Total	**83**	**31,833.38**	**31,143.27**	**97.83%**	**$122,981.87**

Details on the varied methodologies used to calculate verified savings associated with each measure can be found in the Residential, Low Income, and Non Residential program-level impact evaluation results sections below.

1.2 Conclusions and Recommendations

The following section details the Evaluators' conclusions and recommendations for each the Residential, Low Income, and Non Residential program evaluations.

1.2.1 Conclusions

Key program-specific and overarching conclusions are presented in the following subsections.

1.2.1.1 Residential Programs

The Evaluators provide the following conclusions regarding Avista's Residential gas programs:

- The Evaluators found the Residential Portfolio had total verified savings of 163,004.90 therms with a realization rate of 93.90%. This suggests strong consistency in expected and verified savings methodologies, particularly so for the Residential Midstream program which made up over 87% of total verified residential savings.
- The **Appliances** and **Residential Shell** programs yielded realization rates of 73.70% and 81.27%, respectively. Lower realization rates for these programs were driven by differences in the granularity of the Northwest Power and Conservation Council's Regional Technical Forum (RTF) measure deemed savings estimates as compared to the expected values employed by Avista. The RTF differentiates deemed savings values by a variety of factors including location (per RTF heating/cooling zone), installed equipment efficiency (e.g., window U-factor, insulation R-value, appliance ENERGY STAR most efficient certification), heating fuel (e.g., gas vs. electric), and household heating equipment type (e.g., furnace vs. boiler). In contrast, Avista's expected savings values were more often averaged values with less differentiation by the aforementioned factors. While less granularity in measure differentiation can make it more straightforward to determine ex-ante savings, averaged values can be less precise than the RTF's savings differentiation. This difference in deemed savings value differentiation was a key driver of lower realization rates. In addition to this difference in methodological granularity, the Evaluators also found several instances in which installed equipment did not meet claimed efficiency standards which also contributed to lower program-wide realization rates.

- The **ENERGY STAR Homes** Program yielded a realization rate of 112.32% primarily due to the fact that expected savings seem to have been calculated based on an average of the RTF's deemed savings values for heating zones 1-3, while the Evaluators calculated verified savings based on the participants' actual location and heating zone.
- The **Fuel Conversion** Program yielded verified savings of -5,403.00 therms for a realization rate of 100.00%. The negative gas savings associated with this program are offset by decreased electric usage due to outdated electric heating equipment being converted to efficient gas equipment.
- The **Home Energy Audit** Program did not include expected savings and as such has no realization rate. The program did not yield statistically significant savings per a billing analysis and as such the 190 gas participants have been assigned zero therm savings for PY2025.
- The **Residential Midstream** Program yielded verified savings of 142,774.86 therms with a realization rate of 97.11%. Across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM. This realization rate of close to 100% highlights Avista's accurate application of reviewed savings values across the Midstream program. Deviations from a 100% realization rate were primarily due to minor differences in expected and verified savings values for gas furnaces. Expected furnace savings were based on a treatment-only billing data regression analysis run in July 2025 while verified furnace savings were based on a post-program regression (PPR) regression analysis run in March 2026.

1.2.1.2 Low Income Programs

The Evaluators provide the following conclusions regarding Avista's Low Income gas program:

- The verified savings for the Low Income Program in PY2024 are 1,283.79 therms with a realization rate of 93.02%.
- The verified savings for the Low Income Program in PY2025 are 3,832.95 therms with a realization rate of 99.13%.
- Differences between reported and verified savings were primarily driven by data limitations, including inconsistencies in the measure quantity field, the need to apply Single Family RTF values for Manufactured and Multifamily homes, and missing details such as exterior door square footage and installed window type, both of which required conservative assumptions.

1.2.1.3 Non Residential Programs

The Evaluators provide the following conclusions regarding Avista's Non Residential gas programs:

- The Evaluators found the Non Residential portfolio had total verified savings of 31,143.27 therms with a realization rate of 99.13%. All programs except for the Non Residential Shell program had realization rates between 94% and 100%, while the Non Residential Shell program had a 26.82% realization rate. Broadly there was good consistency between expected and verified savings for the Non Residential portfolio.

- The **Non Residential Midstream** Program yielded a realization rate of 99.77% highlighting excellent concordance between expected and verified savings values. Slight differences in assumed savings calculation parameters for instantaneous water heaters led to a 91.72% realization rate for that measure which decreased program-wide savings down to 99.77% instead of a perfect 100%.
- The **Non Residential Shell** Program had a realization rate of 26.82%. This low realization rate is explained by the fact that verified savings methodologies integrated actual 2025 weather data into savings calculations while expected savings methods did not seem to. Ultimately, differences in the parameters and assumptions of expected and verified engineering equations seem to have contributed to this lower realization rate.
- The **Site Specific** program yielded an overall realization rate of 94.51%, suggesting strong consistency in ex-ante and ex-post evaluation methodologies across most custom projects. One project had an expected engineering methodology that could not be reverse engineered which forced the Evaluators to rely on deemed savings estimates to calculate verified savings. This difference in methodology contributed to a realization rate slightly lower than 100%.

1.2.2 Recommendations

Key program-specific and overarching recommendations are presented in the following subsections.

1.2.2.1 Residential Programs

The Evaluators offer the following recommendations regarding Avista's Residential gas programs:

- The Evaluators found a handful of instances in which the rebated equipment did not meet the program minimum requirements for efficiency, or did not meet the measure specifications defined by the RTF to achieve expected savings claimed by Avista. The Evaluators recommend Avista check the source AHRI documentation and product level documentation to verify efficiency prior to incentivizing installation of the measure and assigning expected savings.
- The Evaluators also found several instances in which RTF heating zone or household heating fuel included in the tracking data did not match rebate documentation. The Evaluators would recommend Avista regularly review tracking data and compare it to available databases to improve accuracy where possible.
- In addition, there were many instances in which Avista's expected savings values did not align with the more granular estimates included in RTF unit energy savings workbooks. The Evaluators appreciate there is a balance between the ease of applying a single savings value to an installed measure and the improved precision of differentiating savings based on a variety of factors. However, at a minimum the Evaluators would recommend differentiating savings based on location (e.g., via RTF heating/cooling zone) and measure efficiency in the future to ensure expected savings values are as precise as possible.
- Lastly, the Evaluators would suggest Avista include key fields in tracking data across all programs. Certain fields are always used in savings evaluation and without them simplifying assumptions are often required which may reduce the accuracy of savings estimates. The

Evaluators appreciate that customers may not completely fill out rebate application forms, which may make tracking data completeness a challenge; however, tracking data should ideally include the following fields at a minimum:

- A unique identifier for each measure installed
- Household space heating fuel and equipment type (e.g., furnace vs. boiler)
- Household water heating fuel and equipment type
- Household address including zip code
- Whether or not the household has cooling equipment
- Measure installation quantity and square footage for relevant measures like windows and insulation
- Measure baseline conditions including efficiency and configuration (e.g., the type of windows being replaced – single vs. double pane)
- Installed measure equipment efficiency and configuration
- Installed measure equipment model numbers
- Expected savings estimates
- Incentive and measure costs associated with the installed equipment

1.2.2.2 Low Income Programs

The Evaluators offer the following recommendation regarding Avista's Low Income gas programs:

- To improve the accuracy and efficiency of future EM&V efforts for the Low-Income Program, the Evaluators recommend enhancing the tracking system to include consistent, measure-specific data fields and to capture key attributes required for RTF savings calculations, such as installed window characteristics and exterior door dimensions. Standardizing how measure quantities are recorded across all measure types would reduce ambiguity and prevent the need for assumptions during verification. Additionally, incorporating checks for measure eligibility criteria—such as ENERGY STAR certification for storage tank water heaters—would help ensure that only qualifying installations are reported with savings. These improvements would strengthen data quality, reduce reliance on assumptions, and support more accurate realization rates in future program years.

1.2.2.3 Non Residential Programs

The Evaluators offer the following recommendations regarding Avista's Non Residential gas programs:

- The Evaluators found several instances in which RTF heating zone or household heating fuel included in the tracking data did not match rebate documentation. The Evaluators would recommend Avista regularly review tracking data and compare it to available databases to improve accuracy where possible.

- The Evaluators would suggest Avista include key fields in tracking data across all programs. Certain fields are always used in savings evaluation and without them simplifying assumptions are often required which may reduce the accuracy of savings estimates. The Evaluators appreciate that customers may not completely fill out rebate application forms, which may make tracking data completeness a challenge; however, tracking data should ideally include all the fields detailed above in the Residential Programs recommendations section.
- For the **Site Specific** Program, the Evaluators would recommend Avista share expected savings Excel calculators/tools wherever possible to ensure verified savings are calculated based on the most complete information possible. While tracking data and rebate documentation PDFs both provide useful details for verified savings calculations, given the complexity of some custom measures, having access to all ex-ante Excel calculators would be useful for future savings estimation.

2. General Methodology

The Evaluators performed an impact evaluation on each of the programs summarized in Avista's Idaho gas portfolio. The Evaluators used the following approaches to calculate energy impact defined by the International Performance Measurement and Verification Protocols (IPMVP)[1] and the Uniform Methods Project (UMP)[2]:

- Simple verification (web-based surveys)
- Document verification (review project documentation)
- Deemed savings (RTF UES and Avista TRM values)
- Whole facility billing analysis (IPMVP Option C)
- Appropriate IPMVP Option (for Site-Specific, depending on project)

The Evaluators completed the above impact tasks for each the electric impacts and the natural gas impacts for projects completed in the Idaho Avista service territory. For the purposes of this report, only the Idaho Gas impacts are quantified and reported.

The M&V methodologies are program-specific and determined by previous Avista evaluation methodologies as well as the relative contribution of a given program to the overall energy efficiency impacts. Besides drawing on IPMVP, the Evaluators also reviewed relevant information on infrastructure, framework, and guidelines set out for EM&V work in several guidebook documents that have been published over the past several years. These include the following:

- Northwest Regional Technical Forum (RTF)[3]
- National Renewable Energy Laboratory (NREL), United States Department of Energy (DOE) The Uniform Methods Project (UMP): Methods for Determining Energy Efficiency Savings for Specific Measures, April 2013[4]
- International Performance Measurement and Verification Protocol (IPMVP) maintained by the Efficiency Valuation Organization (EVO) with sponsorship by the U.S. Department of Energy (DOE)[5]

The Evaluators kept data collection instruments, calculation spreadsheets, and monitored/survey data available for Avista records.

2.1 Glossary of Terminology

As a first step to detailing the evaluation methodologies, the Evaluators have provided a glossary of terms to follow:

[1] https://www.nrel.gov/docs/fy02osti/31505.pdf
[2] https://www.nrel.gov/docs/fy18osti/70472.pdf
[3] https://rtf.nwcouncil.org/measures
[4] Notably, The Uniform Methods Project (UMP) includes the following chapters authored by Qualus (formerly ADM). Chapter 9 (Metering Cross- Cutting Protocols) was authored by Dan Mort and Chapter 15 (Commercial New Construction Protocol) was Authored by Steven Keates.
[5] Core Concepts: International Measurement and Verification Protocol. EVO 100000 – 1:2016, October 2016.

- **Deemed Savings** – An estimate of an energy savings outcome (gross savings) for a single unit of an installed energy efficiency measure. This estimate (a) has been developed from data sources and analytical methods that are widely accepted for the measure and purpose and (b) are applicable to the situation being evaluated.
- **Expected Savings** – Calculated savings used for program and portfolio planning purposes.
- **Verified Savings** – Savings estimates after the unit-level savings values have been updated and energy impact evaluation has been completed, integrating results from billing analyses and appropriate RTF UES and Avista TRM values.
- **Gross Savings** – The change in energy consumption directly resulting from program-related actions taken by participants in an efficiency program, regardless of why they participated.
- **Free Rider** – A program participant who would have implemented the program measure or practice in absence of the program.
- **Net-To-Gross** – A factor representing net program savings divided by gross program savings that is applied to gross program impacts to convert them into net program load impacts.
- **Net Savings** – The change in energy consumption directly resulting from program-related actions taken by participants in an efficiency program, with adjustments to remove savings due to free ridership.
- **Non-Energy Benefits** – Quantifiable impacts produced by program measures outside of energy savings (comfort, health and safety, reduced alternative fuel, etc.).
- **Non-Energy Impacts** – Quantifiable impacts in energy efficiency beyond the energy savings gained from installing energy efficient measures (reduced cost for operation and maintenance of equipment, reduced environmental and safety costs, etc.).

2.2 Summary of Approach

This section presents our general cross-cutting approach to accomplishing the impact evaluation of Avista's Residential, Low Income, and Non Residential programs. The Evaluators start by presenting our general evaluation approach. This chapter is organized by general task due to substantial overlap across programs.

The Evaluators outline the approach to verifying, measuring, and reporting the residential portfolio impacts as well as cost-effectiveness and summarizing potential program and portfolio improvements. The primary objective of the impact evaluation is to determine ex-post verified net energy savings.

Our general approach for this evaluation considers the cyclical feedback loop among program design, implementation, and impact evaluation. Our activities during the evaluation estimate and verify annual energy savings and identify whether a program is meeting its goals. These activities are aimed to provide guidance for continuous program improvement and increased cost effectiveness for the 2026 program year and onwards.

The Evaluators employed the following approach to complete impact evaluation activities for the programs. The Evaluators define major approaches to determining net savings for Avista's programs:

- A *Deemed Savings* approach involves using stipulated savings for energy conservation measures for which savings values are well-known and documented. These prescriptive savings may also

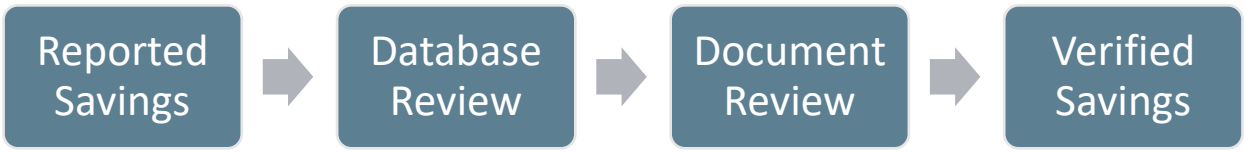
include an adjustment for certain measures, such as lighting measures in which site operating hours may differ from RTF values.

- A *Billing Analysis* approach involves estimating energy savings by applying a linear regression to measured participant energy consumption utility meter billing data. Billing analyses included billing data from nonparticipant customers. This approach does not require on-site data collection for model calibration. This approach aligns with the IPMVP Option C.
- A *Semi-Custom* approach, used for the Prescriptive Lighting and Small Business Lighting program, where savings are quantified by a standard engineering algorithm with key performance parameter(s), such as pre/post wattage, quantity and annual hours of use. This approach aligns with IPMVP Option A.
- A *Custom* approach, used for the Site-Specific program, involves selecting the appropriate IPMVP option to apply to the specific measure or project. Typically, this is Option A as most projects in the program are lighting retrofits, however Options B, C and D may also be employed, depending upon the project. Specific methods are discussed in each site report.

The Evaluators aimed to accomplish the following quantitative goals as part of the impact evaluation:

- Verify savings with 10% precision at the 90% confidence level;
- Where appropriate, apply the RTF to verify measure impacts;
- Where available data exists, conduct billing analysis with a suitable comparison group to estimate measure savings; and
- Use IPMVP analysis methods for custom projects.

The Evaluators calculated verified savings for each measure based on the RTF UES, Avista TRM, or an IPMVP-approved methodology (such as an Option C billing analysis) in combination with the results from document review. For the Appliances, ENERGY STAR Homes, Residential Shell, Green Motors, and Prescriptive Lighting Programs, the Evaluators also applied in-service rates (ISRs) from verification surveys. The following flow chart outlines the process by which the Evaluators progress from reported savings to verified savings.



The Evaluators assigned methodological rigor level for each measure and program based on its contribution to the portfolio savings and availability of data.

2.2.1 Database Review

At the outset of the evaluation, the Evaluators reviewed the databases to ensure that each program tracking database conforms to industry standards and adequately tracks key data required for evaluation.

Measure-level net savings were evaluated primarily by reviewing measure algorithms and values in the tracking system to ensure appropriate, error-free savings estimates were included in the tracking data. The Evaluators then aggregated and cross-checked program and measure totals.

The Evaluators reviewed program application documents for a sample of incented measures to verify the tracking data accurately represents the program documents. The Evaluators ensured the home installed measures that meet or exceed program efficiency standards.

2.2.2 Verification Methodology

In this section, the Evaluators summarize the verification methods used to ensure projects were completed and to the efficiency levels detailed in the program-level tracking data.

2.2.2.1 Sampling Methodology

The Evaluators summarize the methods for each verification effort:

- Sampling methodology for most programs
- Sampling methodology for the Site-Specific Program
- Document-based verification
- Survey-based verification
- On-site visits

2.2.2.2 Sampling Methodology for Most Programs

The Evaluators verified a sample of participating households for detailed review of the installed measure documentation and development of verified savings. The Evaluators verified tracking data by reviewing invoices and surveying a sample of participant customer households. The Evaluators also conducted a verification survey for program participants.

The Evaluators used the following equations to estimate sample size requirements for each program and fuel type. Required sample sizes were estimated as follows:

Equation 2-1: Sample Size for Infinite Sample Size

$$n = \left(\frac{Z \times CV}{d}\right)^2$$

Equation 2-2: Sample Size for Finite Population Size

$$n_0 = \frac{n}{1 + \left(\frac{n}{N}\right)}$$

Where,

- n = Sample size
- Z = Z-value for a two-tailed distribution at the assigned confidence level.
- CV = Coefficient of variation
- d = Precision level

- N = Population

For a sample that provides 90/10 precision, Z = 1.645 (the critical value for 90% confidence) and d = 0.10 (or 10% precision). The remaining parameter is *CV*, or the expected coefficient of variation of measures for which the claimed savings may be accepted. A *CV* of .5 was assumed for residential programs due to the homogeneity of participation[6], which yields a sample size of 68 for an infinite population. Sample sizes were adjusted for smaller populations via the method detailed in Equation 2-2.

2.2.2.3 Sampling Methodology for the Site-Specific Program

For the Site-Specific program, Simple Random Sampling is not an effective sampling methodology as the CV values observed in business programs are typically very high because the distributions of savings are generally positively skewed. Often, a relatively small number of projects account for a high percentage of the estimated savings for the program.

To address this situation, we use a sample design for selecting projects for the M&V sample that considers such skewness. With this approach, we select several sites with large savings for the sample with certainty and take a random sample of the remaining sites. To improve precision, non-certainty sites are selected for the sample through systematic random sampling. That is, a random sample of sites remaining after the certainty sites have been selected is selected by ordering them according to the magnitude of their savings and using systematic random sampling. Sampling systematically from a list that is ordered according to the magnitude of savings ensures that any sample selected will have some units with high savings, some with moderate savings, and some with low savings. Samples cannot result that have concentrations of sites with atypically high savings or atypically low savings. Specific sampling characteristics are shown in the Site-Specific section of this report.

The following sections describe the Evaluator's methodology for conducting document-based verification and survey-based verification.

2.2.2.4 Document-Based Verification

The Evaluators requested rebate documentation for a subset of participating customers. These documents included invoices, rebate applications, pictures, and AHRI certifications for the following programs.

- Appliances Program
- ENERGY STAR® Homes Program
- Fuel Conversion Program
- Residential Midstream Program
- Residential Shell Program
- Low Income Program

[6] Assumption based off California Evaluation Framework:

https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/EE_and_Energy_Savings_Assist/CAEvaluationFramework.pdf

- Non Residential Midstream Program
- Non Residential Shell Program
- Site Specific Program

This sample of documents was used to cross-verify tracking data inputs. In the case the Evaluators found any deviations between the tracking data and application values, the Evaluators reported and summarized those differences in the Database Review & Document Verification sections presented for each program.

Meanwhile the Home Energy Audit program was evaluated based on a comprehensive review of billing data as well as tracking data from current and previous evaluations.

The Evaluators developed a sampling plan that aimed to achieve a sampling precision of ±10% at 90% statistical confidence – or "90/10 precision" – to estimate the percentage of projects for which the claimed savings are verified or require some adjustment. The Evaluators developed the following samples for each program's document review using Equation 2-1 and Equation 2-2. The Evaluators ensured representation in each state and fuel type for each measure.

Table 2-1: Document-based Verification Samples and Precision by Program

Sector	Program	Gas Population	Sample (With Finite Population Adjustment)*	Precision at 90% CI
Residential	Appliances	283	57	90% ± 9.74%
Residential	ENERGY STAR Homes	2	2	90% ± 0.00%
Residential	Fuel Conversion	11	11	90% ± 0.00%
Residential	Residential Midstream	1,811	839	90% ± 2.08%
Residential	Residential Shell	631	65	90% ± 9.66%
Low Income	Low Income	60	32	90% ± 9.93%
Non Residential	Non Residential Midstream	79	17	90% ± 8.83%
Non Residential	Non Residential Shell	2	2	90% ± 0.00%
Non Residential	Site Specific	2	2**	90% ± 0.00%

*Assumes sample size of 68 for an infinite population, based on *CV* (coefficient of variation) = 0.5, *d* (precision) = 10%, *Z* (critical value for 90% confidence) = 1.645.

** The Site-Specific Program sample is distinct from other sampling methodologies presented in this table as it is chosen via a random stratified sample. However, it is included in this table for illustrative and informative purposes.

The table above represents the number of rebates in Idaho service territory only (does not include Idaho rebate samples). The Evaluators ensured representation of state and fuel type in the sampled rebates for document verification.

2.2.2.5 Survey-Based Verification

The Evaluators conducted survey-based verification for the Appliances program, Residential Shell program, and the Prescriptive Lighting program in PY2025. The primary purpose of conducting a verification survey is to confirm that the measure was installed and is still currently operational and whether the measure was early retirement or replace-on-burnout.

The Evaluators summarize the final sample sizes shown in Table 2-2 for the Residential Appliance and Non Residential Lighting Programs. The Evaluators developed a sampling plan that achieved a sampling

precision of ±4.62% at 90% statistical confidence for residential ISRs estimates at the program-level during web-based survey verification.

Table 2-2: Survey-Based Verification Sample and Precision by Program

Sector	Program	Population	Respondents	Precision at 90% CI
Residential	Appliances	2,911	160	90% ± 6.32%
Residential	Shell	6,115	146	90% ± 6.73%

The Evaluators implemented a web-based survey to complete the verification surveys. The Evaluators contacted all customers in the programs listed in the table above with the goal of reaching 90/10 precision. For all programs in which in-service rates were not identified via survey-based verification, the Evaluators assumed in-service rates of 100%.

The findings from these activities served to estimate ISRs for each measure surveyed. These ISRs were applied in the calculation of verified savings values.

2.2.2.6 On-Site Visits

For the 2025 evaluation, the Evaluators did not conduct any on-site visits as available tracking data and rebate documentation contained all required data for verification.

2.2.3 Impact Evaluation Methodology

The Evaluators employed the following approach to complete impact evaluation activities for all programs except Site Specific. The Evaluators define two major approaches to determining net savings for Avista's programs:

- Deemed Savings
- Partial Retrofit Isolation Engineering Equation (IPMVP Option A)
- Billing Analysis (IPMVP Option C)

In contrast, the Site-Specific program also employed various IPMVP options, based on available data and the energy efficiency measures being installed. This approach is discussed separately in the Site Specific Program section as it differs in approach from the approaches used in the remainder of the portfolio. In the following sections, the Evaluators summarize the general guidelines and activities followed to conduct the deemed savings and billing analysis approaches.

2.2.3.1 Deemed Savings

This section summarizes the deemed savings analysis method the Evaluators employed for the evaluation of a subset of measures for each program. The Evaluators completed the validation for specific measures across each program using the RTF unit energy savings (UES) values, where available. The Evaluators ensured the proper measure unit savings, were recorded and used in the calculation of Avista's ex-ante measure savings. Per RTF UES workbook guidelines, the Evaluators differentiated savings based on customer heating/cooling zone and other key measure/household data like equipment efficiency and heating fuel type, where appropriate and available.

The Evaluators requested and used the technical reference manual Avista employed during calculation of ex-ante measure savings (Avista TRM) for limited measures where an appropriate RTF UES measure workbook (or other valid methodology) was not available. Of note, based on extensive discussions with Avista and its Midstream program implementer, Avista TRM values were used to verify both Residential and Non Residential Midstream measures. These midstream measure Avista TRM savings values were thoroughly vetted by the Evaluators across 2024 and 2025.

In cases where the RTF has existing unit energy savings (UES) applicable to Avista's measures, the Evaluators verified the quantity and quality of installations and applied the RTF's UES to determine verified savings.

2.2.3.2 Partial Retrofit Isolation Engineering Equation

For select measures where an RTF UES measure workbook was not available, the Evaluators employed simple engineering equations to identify measures savings. This methodology is consistent with IPMVP Option A partial retrofit isolation. Valid engineering equations were identified using reputable sources such as the Illinois TRM version 12.[7] Wherever possible, Pacific Northwest-specific inputs were used in these engineering equations to ensure verified savings estimates were regionally relevant.

2.2.3.3 Billing Analysis

This section describes the billing analysis methodology employed by the Evaluators as part of impact evaluation activities. In most cases, the Evaluators performed billing analyses with a matched control group, utilizing a quasi-experimental method of producing a post-hoc control group. In program designs where treatment and control customers are not randomly selected at the outset, such as for downstream rebate programs, quasi-experimental designs are necessary to produce a matched control cohort. Where a valid matched control group could not be developed, the Evaluators employed a treatment-only regression analysis.

For the purposes of this analysis, a household is considered a treatment household if it has participated in an energy efficiency program. Meanwhile, a household is considered a control household if the household has not participated in an energy efficiency program during the relevant analysis period. To isolate measure impacts, treatment households are eligible to be included in the billing analysis if they installed only one measure during the 2025 program year. Isolation of individual measures is necessary to provide valid measure-level savings. Households that installed more than one measure may display interactive energy savings effects across multiple measures that are not feasible to identify. Therefore, instances where households installed isolated single measures were used in the billing analyses.

Before delving further into the specifics of the Evaluators' billing analysis methodology, it is important to clarify a few key definitions. In the context of a billing analysis, the pre-period identifies the period prior to measure installation while the post-period refers to the period following measure installation. In the regressions run by the Evaluators the pre-period and the post-period were both 12 months meaning the overall analysis period was 24 months.

[7] https://www.ilsag.info/wp-content/uploads/IL-TRM-Version-12.0-Volumes-1-4-Compiled-Final.pdf

The Evaluators utilized propensity score matching (PSM) to match nonparticipants to similar participants using pre-period billing data. PSM allows the evaluators to find the most similar household based on the customers' billed consumption trends in the pre-period as well as other variables like 3-digit zip code. Similarity between treatment customers and matched controls can be verified via statistical difference testing. After developing a matched cohort via PSM, the billing data for treatment and control groups are compared, as detailed in IPMVP Option C. The Evaluators fit regression models to estimate weather-dependent daily consumption differences between participating customer and nonparticipating customer households.

Cohort Creation

The PSM approach estimates a propensity score for treatment and control customers using a logistic regression model. A propensity score is a metric that summarizes several dimensions of household characteristics into a single metric that can be used to group similar households. The Evaluators created a post-hoc control group by compiling billing data from a subset of nonparticipants in the Avista territory to compare against treatment households using quasi-experimental methods. This allowed the Evaluators to select from a large group of similar households that have not installed an incented measure. With this information, the Evaluators created statistically comparable matched control groups for each measure via seasonal pre-period usage. The Evaluators matched customers in the control group to customers in the treatment group based on nearest seasonal pre-period usage (e.g., summer, spring, fall, and winter) and exact 3-digit zip code matching (the first three digits of the five-digit zip code). After matching, the Evaluators conducted a *t*-test for each month in the pre-period to help determine the success of PSM.

While it is not possible to guarantee the creation of a perfectly matched control group, the inclusion of a control group via PSM allows billing analyses to control for external factors that might affect energy usage. Some examples of external factors that might impact energy usage include changes in the economy (e.g., a recession), large-scale societal changes (e.g., a pandemic), or major weather-related anomalies such as flooding or hurricanes. If such external factors are not present, then a treatment-only regression analysis can also be a valid methodology to determine measure-level savings.

After PSM, the Evaluators ran the following regression models for each measure included in the billing analysis:

- Fixed effect Difference-in-Difference (D-n-D) regression model (recommended in UMP protocols)[8]
- Random effects post-program regression model (PPR) (recommended in UMP protocols)
- Gross billing analysis (treatment only)

After running these regressions, the Evaluators determined the most appropriate model base on a review of key metrics such as model fit (per adjusted R-squared), model significance (i.e., a p-value ≤ 0.05), and average savings values. Further details on regression model specifications can be found below.

[8] National Renewable Energy Laboratory (NREL) Uniform Methods Project (UMP) Chapter 17 Section 4.4.7.

Data Collected
The following lists the data collected for the billing analysis:

1. Monthly billing data for program participants (treatment customers)
2. Monthly billing data for a group of non-program participants (control customers)
3. Program tracking data, including customer identifiers, address, and date of measure installation
4. National Oceanic and Atmospheric Administration (NOAA) weather data between January 1, 2024 and December 31, 2025)
5. Typical Meteorological Year (TMY3) data

Billing and weather data were obtained for program year 2025 and for one year prior to measure install dates (2024).

Weather data was obtained from the nearest weather station with complete data during the analysis years for each customer by mapping the weather station location with the customer zip code.

TMY weather stations were assigned to NOAA weather stations by geocoding the minimum distance between each set of latitude and longitude points. This data is used for extrapolating savings to long-run, 30-year average weather.

Data Preparation
The following steps were taken to prepare the billing data:

1. Gathered billing data for homes that participated in a given program and installed a given measure.
2. Excluded participant homes that also participated in other programs or installed other energy efficiency measures.
3. Gathered billing data for similar customers that did not participate any energy efficiency programs.
4. Excluded bills missing address information, if any were identified.
5. Removed bills missing fuel type/Unit of Measure (UOM) information, if any were identified.
6. Removed bills missing usage, billing start date, or billing end date, if any were identified.
7. Remove bills with outlier durations (<9 days or >60 days) , if any were identified.
8. Excluded bills with consumption indicated to be outliers, if any were identified.
9. Remove duplicate bills and any bills with overlapping billing periods. If two billing periods overlapped, the bill with a start date that matched the previous bill's end date was included and the other bill was excluded. For example, if overlapping bill 1 had a 02/19/2025 start date, overlapping bill 2 had a 02/25/2025 start date, and the previous bill had a 02/19/2025 end date, overlapping bill 2 would be removed. If there was no previous bill, the overlapping bill with the earlier start date was included and the other overlapping bill was removed.

10. Calendarized bills (this involves recalculating billing dates, usage, and total billed days such that bills begin and end at the start and end of each month).
11. Obtained weather data from the nearest NOAA weather station using 5-digit zip code per household.
12. Computed Heating Degree Days (HDD) and Cooling Degree Days (CDD) for a range of setpoints. For this analysis the Evaluators assigned a setpoint of 65°F for both HDD and CDD.
13. Removed measure cohorts without at least 75 treatment customers.
14. Selected treatment customers with only one measure installed during the analysis period and added measure install dates to the billing data dataset (to define pre- and post-periods).
15. Removed customers with incomplete post-period billing data (<6 months).
16. Removed customers with incomplete pre-period billing data (<10 months).
17. Restricted control customers to those with usage that was comparable with the treatment group usage.
18. Created a matched control group using PSM and matching on pre-period seasonal usage and zip code.

Regression Models

The Evaluators ran the following models for matched treatment and control customers for each measure with sufficient participation. In most cases, the Evaluators selected either Model 1 or Model 2 to identify verified net savings. However, the Evaluators also considered Model 3 since treatment-only regression analyses can also provide valid savings estimates, especially if major external factors (e.g., a pandemic) are unlikely to affect broader trends of customer energy usage (as is the case in Idaho across 2024 and 2025).

2.2.3.3.1.1 Model 1: Fixed Effects Difference-in-Difference Regression Model

The following equation displays the first model specification used to estimate the average daily savings associated with each energy efficiency measure included in the billing analysis.

Equation 2-3: Fixed Effects Difference-in-Difference (D-n-D) Model Specification

$$ADC_{it} = \alpha_0 + \beta_1(Post)_{it} + \beta_2(Post \times Treatment)_{it} + \beta_3(HDD)_{it} + \beta_4(CDD)_{it} + \beta_5(Post \times HDD)_{it} + \beta_6(Post \times CDD)_{it} + \beta_7(Post \times HDD \times Treatment)_{it} + \beta_8(Post \times CDD \times Treatment)_{it} + \beta_9(Month)_t + \beta_{10}(Customer\ Dummy)_i + \varepsilon_{it}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage reading *t* for household *i* during the post-treatment period
- $Post_{it}$ = A dummy variable indicating pre- or post-period designation during period *t* at home *i*
- $Treatment_i$ = A dummy variable indicating treatment status of home *i*

- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*
- $Month_t$= A set of dummy variables indicating the month during period *t*
- $Customer\ Dummy_i$ = a customer-specific dummy variable isolating individual household effects
- ε_{it} = The error term
- α_0= The model intercept
- β_{1-10} = Coefficients determined via regression

The Average Daily Consumption (ADC) is calculated as the total monthly billed usage divided by the duration of the bill month. β_2 represents the average change in daily usage in the post-period between the treatment and control group and β_7 and β_8 represent the change in weather-related daily consumption in the post-period between the groups. Typical monthly and annual savings were estimated by extrapolating the β_7 and β_8 coefficients with Typical Meteorological Year (TMY) HDD and CDD data. However, in the case of gas usage, only the coefficient for HDD is utilized because CDDs were not included in the regression model.

The equation below displays how savings were extrapolated for a full year utilizing the coefficients in the regression model and TMY data. TMY data is weighted by the number of households assigned to each weather station.

Equation 2-4: Savings Extrapolation

$$Annual\ Savings = \beta_2 * 365.25 + \beta_7 * TMY\ HDD + \beta_8 * TMY\ CDD$$

2.2.3.3.1.2 Model 2: Random Effects Post-Program Regression Model

The following equation displays the second model specification to estimate the average daily savings due to the measure. The post-program regression (PPR) model combines both cross-sectional and time series data in a panel dataset. This model uses only the post-program data, with lagged energy use for the same calendar month of the pre-program period acting as a control for any small systematic differences between the treatment and control customers; in particular, energy use in calendar month *t* of the post-program period is framed as a function of both the participant variable and energy use in the same calendar month of the pre-program period. The underlying logic is that systematic differences between treatment and control customers will be reflected in the differences in their past energy use, which is highly correlated with their current energy use. These interaction terms allow pre-program usage to have a different effect on post-program usage in each calendar month. The model specification is as follows:

Equation 2-5: Post-Program Regression (PPR) Model Specification

$$ADC_{it} = \alpha_0 + \beta_1(Treatment)_i + \beta_2\,(PreUsageSpring)_i + \beta_3(PreUsageSummer)_i + \beta_4(PreUsageFall)_i + \beta_5(PreUsageWinter)_i + \beta_6(Month)_t + \beta_7(Month \times PreUsageSpring)_{it} + \beta_8(Month \times PreUsageSummer_{)it} + \beta_9(Month \times PreUsageFall)_{it} + \beta_{10}(Month \times PreUsageWinter)_{it} + \beta_{11}(HDD)_{it} + \beta_{12}(CDD)_{it} + \beta_{13}(Treatment \times HDD)_{it} + \beta_{14}(Treatment \times CDD)_{it} + \varepsilon_{it}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage for reading *t* for household *i* during the post-treatment period
- $Treatment_i$ = A dummy variable indicating treatment status of home *i*
- $Month_t$ = Dummy variable indicating month of month *t*
- $PreUsageSpring_i$ = Average daily usage in the spring months across household *i*'s available pre-treatment billing reads
- $PreUsageSummer_i$ = Average daily usage in the summer months across household *i*'s available pretreatment billing reads
- $PreUsageFall_i$ = Average daily usage in the fall months across household *i*'s available pretreatment billing reads
- $PreUsageWinter_i$ = Average daily usage in the winter months across household *i*'s available pre-treatment billing reads
- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*
- ε_{it} = Customer-level random error
- α_0= The model intercept for home *i*
- β_{1-14} = Coefficients determined via regression

The coefficient β_1 represents the average change in consumption between the pre-period and post-period for the treatment group and β_{13} and β_{14} represent the change in weather-related daily consumption in the post-period between the groups. Typical monthly and annual savings were estimated by extrapolating the β_{13} and β_{14} coefficients with Typical Meteorological Year (TMY) HDD and CDD data.

The equation below displays how savings were extrapolated for a full year utilizing the coefficients in the regression model and TMY data.

Equation 2-6: Savings Extrapolation

$$Annual\ Savings = \beta_1 * 365.25 + \beta_{13} * TMY\ HDD + \beta_{14} * TMY\ CDD$$

2.2.3.3.1.3 Model 3: Gross Billing Analysis, Treatment-Only Regression Model

The sections above detail the Evaluator's methodology for estimating net energy savings for each measure. The results from the above methodology report net savings due to the inclusion of the counterfactual comparison group. However, treatment-only regression analyses (i.e., those not including a counterfactual comparison group) can also be an extremely useful tool for estimating energy savings. One advantage of a treatment-only regression is it does not rely on quasi-experimental methods (i.e., PSM) to develop a control cohort. Depending on available non-participant billing data, it can be difficult to develop a valid matched control cohort. Especially if sufficient non-participant data is not available to develop an appropriate control group, gross savings calculated via a treatment-only regression can provide valid measure-level energy savings estimates. A treatment-only regression analysis does not include control group billing data, instead it focuses exclusively on the differences in energy usage between the pre-period and post-period for program participants.

To calculate the impacts of each measure, the Evaluators applied linear fixed effects regression using participant billing data with weather controls in the form of Heating Degree Days (HDD) and Cooling Degree Days (CDD). The following equation displays the model specification to estimate the average daily savings due to the measure.

Equation 2-7: Treatment-Only Fixed Effects Weather Model Specification

$$ADC_{it} = \alpha_0 + \beta_1(Post)_{it} + \beta_2(HDD)_{it} + \beta_3(CDD)_{it} + \beta_4(Post \times HDD)_{it} + \beta_5(Post \times CDD)_{it} + \beta_6(Customer\ Dummy)_i + \beta_7(Month)_t + \varepsilon_{it}$$

Where,

- *i* = the *i*th household
- *t* = the first, second, third, etc. month of the post-treatment period
- ADC_{it} = Average daily usage for reading *t* for household *i* during the post-treatment period
- HDD_{it} = Average heating degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i*
- CDD_{it} = Average cooling degree days (base with optimal Degrees Fahrenheit) during period *t* at home *i (if electric usage)*
- $Post_{it}$ = A dummy variable indicating pre- or post-period designation during period *t* at home *i*
- $Customer\ Dummy_i$ = a customer-specific dummy variable isolating individual household effects
- ε_{it} = Customer-level random error
- α_0= The model intercept for home *i*
- β_{1-7} = Coefficients determined via regression

The results of the treatment-only regression models are gross savings estimates. If billing data for statistically comparable control customers (i.e., non-participant Avista customers with comparable usage to treatment customers) is not available, such gross savings analyses can provide reliable savings estimates. While treatment-only models may not separate out the effects of national or regional events

like a pandemic or recession, they still provide meaningful estimates of changes in energy usage associated with measure installation.

2.2.4 Net-To-Gross

The Pacific Northwest RTF UES measures do not require Net-To-Gross (NTG) adjustments as they are built into the deemed savings estimates. In addition, billing analyses with counterfactual control groups, as proposed in our impact methodology, do not require a NTG adjustment, as the counterfactual represents the efficiency level at the current market (i.e. the efficiency level the customer would have installed had they not participated in the program).

3. Residential Impact Evaluation Results

The Evaluators completed an impact evaluation on Avista's Residential portfolio to verify program-level and measure-level energy savings for PY2025. The following sections summarize gas impact evaluation findings for the Idaho service territory. The Evaluators used data collected and reported in the tracking database, online application forms, Avista TRM, RTF, and billing analysis of participants and nonparticipants to evaluate savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 3-1 summarizes the residential verified impact savings by program.

Table 3-1: Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Appliances	283	5,594.57	4,123.11	73.70%
ENERGY STAR Homes	2	267.96	300.96	112.32%
Fuel Conversion	11	-5,403.00	-5,403.00	100.00%
Home Energy Audit	190	0.00	0.00	NA
Residential Midstream	1,891	147,030.50	142,774.86	97.11%
Residential Shell	631	26,097.37	21,208.97	81.27%
Residential Total	**3,008**	**173,587.40**	**163,004.90**	**93.90%**

The following table presents residential incentive and measures costs by program. As outlined in the following program-specific sections, in some cases tracking data did not include complete measure cost information and if that was the case, the Evaluators assumed measure costs were identical to gas incentive costs. For the Home Energy Report program, no cost information was included in the tracking data and as such incentive and measure costs were assumed to be $0.00. For the Fuel Conversion program, incentive and measure costs were counted in the Evaluators' Idaho Electric report and as such gas incentive and measure costs were assigned to zero.

Table 3-2: Residential Costs by Program

Program	Incentive Costs	Measure Costs
Appliances	$29,194.29	$133,633.03
ENERGY STAR Homes	$1,200.00	$110,000.00
Fuel Conversion	$0.00	$0.00
Home Energy Audit	$0.00	$0.00
Home Insulation Program	$738,100.00	$738,100.00
Residential Midstream	$439,431.49	$6,293,704.65
Residential Total	**$1,207,925.78**	**$7,275,437.68**

3.1 Simple Verification Results

The Evaluators surveyed customers participating in Avista's PY2025 Appliances and Residential Shell program and received sufficient responses to hit 90/10 precision. Details on program populations and survey responses can be found in the Survey-Based Verification section above. Results and findings from these surveys and other process evaluation activities can be found in the Evaluators' separate process report. For the purposes of this impact report, the key finding from this survey-based verification activity is the identification of in-service rates.

3.1.1 In-Service Rates

The Evaluators calculated in-service rates (ISRs) of installed measures from simple verification surveys deployed to program participants in the Appliances and Residential Shell programs. The Evaluators asked participants if the rebated equipment is currently installed and working. Measure-specific in-service rates for the Idaho service territory can be found in the following table. The Evaluators assumed an in-service rate of 100% for any measures not included in the following table.

Table 3-3: Residential ISRs by Measure

Program	Measure	Respondents	ISR	ISR Methodology
Appliances	ENERGY STAR Clothes Washer	15	100%	Verification survey
	ENERGY STAR Clothes Dryer	17	100%	Verification survey
Shell	Glass Door	20	100%	Verification survey
	Insulated Door	7	100%	Verification survey
	Windows	59	100%	Verification survey

These ISR values were utilized in the desk reviews for each of the measures listed above in order to calculate verified savings. Additional insights from survey responses are included in a separate process analysis report.

3.2 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Residential sector in the section below.

3.2.1 Appliances Program

The Appliances Program is a residential prescriptive program that offers incentives for customers to upgrade their existing clothes washers/dryers, refrigerators/freezers, and smart thermostats to ENERGY STAR-rated products. Primary multifamily homes with shared interior walls including apartments, duplexes, townhomes, and condos have no minimum usage requirement. Seasonal and recreational homes are not eligible.

This section summarizes the impact results of the evaluation results for the Appliances Program. Table 3-4 summarizes the measures offered under this program.

Table 3-4: Appliances Program Measures

Measure	Description	Impact Analysis Methodology
G Energy Star Rated Clothes Dryer	ENERGY STAR-certified clothes dryer for residential homes	RTF UES
G Energy Star Rated Front Load Washer	ENERGY STAR-certified front-loading clothes washer for residential homes	RTF UES
G Smart Thermostat DIY with Gas Heat	ENERGY STAR-certified Smart Thermostat with DIY install for residential homes	RTF UES
G Smart Thermostat Paid Install with Gas Heat	ENERGY STAR-certified Smart Thermostat with Paid Install for residential homes	RTF UES
Multifamily G Energy Star Rated Clothes Dryer	ENERGY STAR-certified front-loading clothes washer for residential homes	RTF UES
Multifamily G Energy Star Rated Front Load Washer	ENERGY STAR-certified Smart Thermostat with DIY install for residential homes	RTF UES
Multifamily G Smart Thermostat DIY with Natural Gas Heat	ENERGY STAR-certified Smart Thermostat with Paid Install for residential homes	RTF UES

The following table summarizes the verified gas energy savings for the Appliances Program impact evaluation.

Table 3-5: Appliances Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
SF G Energy Star Rated Clothes Dryer	34	95.20	56.00	58.82%
SF G Energy Star Rated Front Load Washer	56	343.71	487.67	141.88%
SF G Smart Thermostat DIY with Natural Gas Heat	124	3,370.58	1,965.11	58.30%
SF G Smart Thermostat Paid Install with Natural Gas Heat	62	1,704.96	1,581.93	92.78%
MF G Energy Star Rated Clothes Dryer	1	2.72	1.60	58.82%
MF G Energy Star Rated Front Load Washer	4	24.12	30.80	127.69%
MF G Smart Thermostat DIY with Natural Gas Heat	2	53.28	0.00	0.00%
Total	**283**	**5,594.57**	**4,123.11**	**73.70%**

The Appliances Program displayed verified savings of 4,123.11 therms with a realization rate of 73.70% against the expected savings for the program. The following table summarizes the incentive and non-incentive costs associated with the program.

Table 3-6: Appliances Program Costs by Measure

Measure	Incentive Costs	Measure Costs
SF G Energy Star Rated Clothes Dryer	$1,750.00	$30,457.98
SF G Energy Star Rated Front Load Washer	$2,850.00	$50,565.42
SF G Smart Thermostat DIY with Natural Gas Heat	$14,563.31	$19,172.55
SF G Smart Thermostat Paid Install with Natural Gas Heat	$9,530.98	$29,295.32
MF G Energy Star Rated Clothes Dryer	$50.00	$699.00
MF G Energy Star Rated Front Load Washer	$200.00	$3,074.00
MF G Smart Thermostat DIY with Natural Gas Heat	$250.00	$368.76
Total	**$29,194.29**	**$133,633.03**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for Appliances Program in the section below.

3.2.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Appliance Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The rebate application form aims to collect all required RTF measure specification details. The Evaluators were able to verify the models for RTF specifications for most projects. One sampled gas project did not include rebate data. Although model number is a required input, seven sampled gas smart thermostat projects did not include this information in the rebate application and therefore did not qualify for measure savings in accordance with the RTF. An additional five gas smart thermostat projects included a model number that did not meet the RTF's efficiency standards. In total, 13 gas projects with claimed savings failed to qualify for verified savings.

3.2.1.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Appliances Program. The Evaluators calculated verified savings for the gas measures using the RTF workbook in place at the time the savings goals for the program were finalized. The Evaluators also conducted a billing analysis for all measures with enough participation, however none of the gas measures in this program qualified for a billing analysis and produced valid savings.

As discussed above, 13 sampled gas smart thermostat projects did not meet the minimum requirements to qualify for RTF savings due to missing model numbers or a model that did not meet efficiency standards, which contributed to the 73.70% realization rate. Additionally, verified savings resulted in a realization rate less than 100% largely due to low savings attributed to the clothes dryer measure. The RTF utilizes more inputs than the Avista TRM to estimate deemed savings, including home characteristics like heat zone, heat type, water heat type, and efficiency tiers for dryers. After accounting for these inputs, the magnitude of energy savings estimated by the TRM is only realized if the measure qualifies for the RTF's highest tier of savings. For example, none of the sampled dryer projects included models certified by the Northwestern Energy Efficiency Alliance (NEEA), leading to a realization rate of 58.82%.

Interestingly, gas front load washer measures displayed realization rates above 100%. The Evaluators note that the RTF applies specific savings depending on the customer's home heat type and hot water heat type, and including those inputs in the Avista TRM could realize higher savings for the remaining gas appliance measures than as currently evaluated.

3.2.2 ENERGY STAR® Homes Program

The ENERGY STAR® Homes Program provides rebates for manufactured homes within Avista's service territory that attain an ENERGY STAR® certification. This program incentivizes ENERGY STAR® Eco-rated homes. Table 3-7 summarizes the measures offered under this program.

Table 3-7: ENERGY STAR® Homes Program Measures

Measure	Description	Impact Analysis Methodology
G ENERGY STAR Home - Manufactured, Gas Only	ENERGY STAR-rated manufactured home with natural gas	RTF UES
E ENERGY STAR Home - Manufactured, Electric Only	ENERGY STAR-rated manufactured home with electric furnace	RTF UES
E ENERGY STAR Home - Manufactured, Gas & Electric	ENERGY STAR-rated manufactured home with gas and electric	RTF UES

The following table summarizes the verified gas energy savings for the ENERGY STAR® Homes Program impact evaluation.

Table 3-8: ENERGY STAR® Homes Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
G Energy Star Home - Manufactured, Gas Only	2	267.96	300.96	112.32%
Total	**2**	**267.96**	**300.96**	**112.32%**

The ENERGY STAR® Homes Program displayed verified savings of 300.96 therms with a realization rate of 112.32% against the expected savings for the program. The following table summarizes the incentive and measure costs associated with the program.

Table 3-9: ENERGY STAR® Homes Program Costs by Measure

Measure	Incentive Costs	Measure Costs
ID-Gas Energy Star Home - Manufactured, Gas Only	$1,200.00	$110,000.00
Total	**$1,200.00**	**$110,000.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the ENERGY STAR® Homes Program in the section below.

3.2.2.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the ENERGY STAR® Homes Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The Evaluators found no duplicate rebates in the project data and therefore did not remove any rebates from verified savings. The Evaluators found all Energy Star Home Program rebates to have project documentation with the associated NEEM Certification.

3.2.2.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the ENERGY STAR® Homes Program. The Evaluators calculated verified savings for the gas measures using the RTF workbook in place at the time the savings goals for the program were finalized. These RTF UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment. In addition, the Evaluators reviewed and applied the current RTF UES values for each measure along with verified tracking data to estimate net program savings.

The ENERGY STAR® Homes Program in total displays a realization rate of 112.32% with 300.96 therms verified gas energy savings in the Idaho service territory, as displayed in Table 3-8. The realization rate for the gas savings in the ENERGY STAR® Homes Program deviates from 100% due to the categorical differences between the applied Avista TRM prescriptive savings value and the more detailed RTF UES categories.

The realization rate for the G ENERGY STAR® Home – Manufactured, Gas Only measure is higher than 100% because the expected savings that were claimed do not take heating zones and cooling zones into account. The Evaluators assigned gas savings from the RTF associated with the appropriate heating and cooling zones rather than defaulting to an average value across all zones. Since the two gas manufactured homes were installed in the RTF's Heating Zone 2 geography, the final verified gas savings were higher than the expected values, which seem to be an average of Heating Zones 1 through 3. The Evaluators recommend updating Avista measure savings to reflect heating zone-specific RTF measure savings rather than averaging savings from heating zones together.

3.2.3 Fuel Conversion Program

Avista's Residential Fuel Conversion Program encourages customers to consider converting their resistive electric space and water heating equipment to natural gas. This program is offered to residential customers in the Idaho service territory. Customers must use Avista electricity for electric straight-resistance heating or water heating in order to qualify for the rebate, which is verified by evaluating their energy use. The home's electric baseboard or furnace heat consumption must have been at least 4,000 kWh during the prior year with less than 340 therms of natural gas use. Customers receive incentives after installation and after submitting a completed rebate form. As detailed in the following table, the Evaluators reference the Avista TRM to calculate the verified savings associated with this program. This section outlines the increase in natural gas usage associated with participation in the Fuel Conversion Program.

Table 3-10: Fuel Conversion Program Measures

Measure	Description	Impact Analysis Methodology
E Electric to Natural Gas Furnace	Electric baseboard or forced air furnace heat to natural gas forced air furnace	Avista TRM
E Electric to Natural Gas Furnace & Water Heat	Electric to natural gas furnace and water heat combo	Avista TRM

The following table summarizes the verified gas energy savings for the Fuel Conversion Program impact evaluation. Negative savings indicate that there was an increase in natural gas usage linked to participation in this program. The reduction in electricity associated with this program is reported in the Evaluators' Idaho Electric Portfolio Impact Evaluation Report.

Table 3-11: Fuel Conversion Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
E Electric to Natural Gas Furnace	7	-3,143.00	-3,143.00	100.00%
E Electric to Natural Gas Furnace & Water Heat	4	-2,260.00	-2,260.00	100.00%
Total	**11**	**-5,403.00**	**-5,403.00**	**100.00%**

The Fuel Conversion program displayed a verified increase in natural gas usage of at least -5,403.00 therms with a realization rate of 100.00% against the expected increase in therms calculated for the program. The following table summarizes the incentive and measure costs associated with the program. Of note, incentive and measure costs are applied to the Fuel Conversion Program section of the Idaho Electric Portfolio Impact Evaluation Report, so to avoid double counting the Fuel Conversion costs in this report are assumed to be zero.

Table 3-12: Fuel Conversion Program Costs by Measure

Measure	Incentive Costs	Measure Costs
E Electric to Natural Gas Furnace	$0.00	$0.00
E Electric to Natural Gas Furnace & Water Heat	$0.00	$0.00
Total	**$0.00**	**$0.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Fuel Conversion Program in the section below.

3.2.3.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Fuel Conversion Program. The Evaluators reviewed rebate applications for all 11 participants to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The Evaluators found that all 11 sampled rebates accurately documented the information necessary to characterize savings for the program within the Idaho gas service territory. The Evaluators verified the installed gas equipment and other inputs necessary to calculate verified savings. The Evaluators' tracking data review did not identify any duplicates in the tracking data.

3.2.3.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Fuel Conversion Program. The Evaluators referenced the Avista TRM, as detailed above, to calculate verified savings associated with this program. With a realization rate of 100.00%, verified electric savings matched expected savings. Of note, two of the installed gas storage water heaters had a uniform energy factor (UEF) of 0.64 which was slightly lower than the minimum required efficiency of 0.65 for storage water heaters. Given that the Avista TRM does not include a savings value for 0.64 UEF storage water heaters specifically, the Evaluators applied the gas penalty associated with the closest valid measure which yielded a 100% realization rate. However, it is possible that the actual increase in gas usage may be slightly higher than reported due to the slightly lower UEF value. Ultimately, the verified increase in gas usage associated with this program very closely matched the expected values.

3.2.4 Home Energy Audit Program

The Residential Home Energy Audit Program is designed to educate and generate interest in energy efficiency and to motivate participation in Avista's portfolio of residential energy efficiency and renewable-energy programs. As a part of this program, participating customers can conduct a DIY home energy audit using a small thermal camera or a third-party contractor can visit and visually inspect the customer's entire home to identify opportunities for energy savings. The Evaluators completed a billing analysis of the census of participants to identify the educational impact of the program on customers' energy usage behaviors while removing savings claimed and verified from other program participation. The following table summarizes the verified gas energy savings for the Home Energy Audit Program impact evaluation.

Table 3-13: Home Energy Audit Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Home Energy Audit	190	NA	0.00	NA
Total	**190**	**NA**	**0.00**	**NA**

The Home Energy Audit Program displayed verified savings of 0.00 therms across 190 gas heating households, due to the fact that gas billing analyses did not yield statistically significant savings estimates. Avista did not estimate claimed savings for this program, and therefore no realization rate was calculated. No cost information associated with the Home Energy Audit program was provided in the tracking data shared with the Evaluators.

The Evaluators summarize the program-specific impact analysis activities, results, conclusions, and recommendations for the Home Energy Audit Program in the section below.

3.2.4.1 Database Review & Document Verification

Before conducting the billing analysis, the Evaluators conducted a database review for the Home Energy Audit Program. The Evaluators reviewed the Home Energy Audit Program tracking data in PY2025 and identified participating customers with gas heating in the Idaho service territory. The Evaluators did not identify any duplicates in the ID gas population tracking data.

3.2.4.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Home Energy Audit Program. The Evaluators employed the following impact evaluation methodology to estimate verified net energy savings in the Residential Home Energy Audit Program:

- Billing Analysis with counterfactual group (IPMVP Option C)

In addition to motivating behavioral changes, the Home Energy Audit program can also provide direct install measures to participating customers through Avista's residential energy efficiency programs. To ensure these savings were not double counted, the Evaluators removed all customers participating in other energy efficiency programs from the Home Energy Audit billing analysis cohort. After removing these customers with potential for double counted savings from the analysis cohort, the Evaluators conducted a billing analysis with a counterfactual group selected via propensity score matching. The

methodology used to select the quasi-experimental counterfactual group and the methodology for linear regression billing analysis are summarized in further detail in the Billing Analysis section above.

Table 3-14: Home Energy Audit Program

Treatment Customers	Treatment Customers Included in Billing Analysis	Estimated Annual Savings per Customer (therms)	Regression Estimate p-value	Regression Estimate Adjusted R-squared	Program Verified Savings (therms)
190	73	0.00	0.129	0.941	**0.00**

The evaluators ran separate billing analyses for each state and fuel type, meaning the savings results presented in this report are specific to residential ID participants with gas heating. For the analysis of the Home Energy Audit program, the Evaluators selected a Post-Program Regression (PPR) model as detailed in the Model 2: Random Effects Post-Program Regression Model section above. This model did not yield statistically significant savings, meaning savings of 0.00 therms were assigned to each participating household. The evaluators provide additional information on billing analyses in the Appendix A: Billing Analysis Results section below.

3.2.5 Residential Midstream Program

Avista recently converted several residential and nonresidential measures from a downstream delivery channel to a midstream delivery channel via local distributors. As Avista notes, midstream approaches have proven successful in other parts of the Pacific Northwest, as well as nationally.

The Midstream Program currently offers midstream incentives to residential customers for measures such as:

- Residential natural gas furnaces
- Residential natural gas tankless water heaters
- Residential natural gas storage tank water heaters
- Residential natural gas boilers

The residential midstream measures and impact evaluation results are presented in this section. This change in delivery channel, from downstream to midstream, seems to have expanded the benefits gained by Avista residential customers.

This section summarizes Avista's estimated savings for the Midstream Program as well as the verified savings calculated by the Evaluators. Table 3-15 summarizes the measures offered under this program.

Table 3-15: Midstream Program Measures

Measure	Description	Impact Analysis Methodology
G Natural Gas Furnace	High efficiency natural gas furnace installation	Avista TRM midstream measure calculations that the Evaluators have reviewed
G Natural Gas Boiler	High efficiency natural gas boiler installation	
G Natural Gas Storage Tank Water Heater	High efficiency natural gas storage tank water heater installation	
G Natural Gas Tankless Water Heater	High efficiency natural gas tankless water heater installation	

The following table summarizes the estimated gas energy savings for the Midstream Program impact evaluation.

Table 3-16: Midstream Program Verified Gas Savings

Measure	Project Count	Expected Savings (Therms)	Verified Savings (Therms)	Realization Rate
G Natural Gas Boiler	16	1,610.11	1,610.75	100.04%
G Natural Gas Furnace	1,689	136,099.62	131,843.34	96.87%
G Natural Gas Storage Tank Water Heater	21	361.14	361.14	100.00%
G Natural Gas Tankless Water Heater	165	8,959.63	8,959.63	100.00%
Total	**1,891**	**147,030.50**	**142,774.86**	**97.11%**

The Midstream Program displayed estimated savings of 142,774.86 therms with a realization rate of 97.11%. The following table summarizes the incentive and measure costs associated with the program. Given that measure costs were not included in Midstream tracking data, the Evaluators assumed measure costs were identical to incentive costs.

Table 3-17: Midstream Program Costs by Measure

Measure	Incentive Costs	Measure Costs
G Natural Gas Furnace	$9,600.00	$9,600.00
G Natural Gas Boiler	$705,250.00	$705,250.00
G Natural Gas Storage Tank Water Heater	$2,625.00	$2,625.00
G Natural Gas Tankless Water Heater	$20,625.00	$20,625.00
Total	**$738,100.00**	**$738,100.00**

The Evaluators describe the impact evaluation tasks completed for this program in the subsections below.

3.2.5.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Midstream Pilot. The Evaluators selected a subset of rebates to cross-verify tracking data inputs, summarized in in Section 2.2.2.4.

The Evaluators found all selected rebates documented the information necessary to accurately characterize savings for the program within the Idaho gas service territory. The Evaluators verified the model number, efficiency, quantity, and other information necessary to calculate verified savings. The Midstream tracking data is tracked and delivered separately from the remaining residential portfolio, often including extensive detail on product characteristics.

3.2.5.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Midstream Program. The Evaluators reviewed and applied the appropriate Avista TRM values to assign verified savings to each of the midstream measures. As highlighted in the Impact Evaluation Methodology section above, across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM.

The Evaluators reviewed the implementer expected savings values along with verified tracking data to estimate net adjusted program savings for those measures. To calculate verified savings, the Evaluators applied savings values from the Avista TRM that have been reviewed for accuracy by the Evaluators. The Midstream Program displayed a 97.11% realization rate with 142,774.86 therms saved, as highlighted in Table 3-16. The Evaluators concluded that the implementers correctly estimated expected savings values and the deviations in realization rate were primarily due to minor differences in expected and verified savings values for gas furnaces. Expected furnace savings of 80.58 therms were based on a treatment-only billing data regression analysis run in July 2025 while verified furnace savings of 78.06 therms were based on a post-program regression (PPR) regression analysis run in March 2026. The March 2026 PPR analysis followed the methodology outlined in the Model 2: Random Effects Post-Program Regression Model section and was based on program participant and non-participant billing data from 2023 through 2025.

3.2.6 Residential Shell Program

The Residential Shell Program provides incentives to customers for improving the integrity of their home's envelope with upgrades to weatherization measures. Rebates are issued after the measure has been installed for insulation and window measures. Participating homes must have electric or natural gas heating and itemized invoices including measure details such as insulation levels, window values, and square footage. In order to be eligible for incentive, the single-family households, including fourplex or less, must demonstrate an annual gas usage of at least 340 therms. Primary multifamily homes with shared interior walls including apartments, duplexes, townhomes, and condos have no minimum usage requirement. Seasonal and recreational homes are not eligible. This program includes free manufactured home duct sealing. Table 3-18 summarizes the measures offered under this program.

Table 3-18: Shell Program Measures

Measure	Description	Impact Analysis Methodology
G Attic Insulation With Natural Gas Heat	Attic insulation for homes heated with natural gas	RTF UES
G Energy Star Certified Insulated Door	Replace door with ENERGY STAR rated door in homes heated with natural gas	RTF UES
G Floor Insulation With Natural Gas Heat	Floor insulation for homes heated with natural gas	RTF UES
G Sliding Glass Doors DIY with Natural Gas Heat	High efficiency sliding glass door replacement for homes heated with natural gas installed by homeowner	RTF UES
G Sliding Glass Doors with Natural Gas Heat	High efficiency sliding glass door replacement for homes heated with natural gas installed by contractor	RTF UES
G Storm Window DIY with Natural Gas Heat	High-efficiency storm window replacement for homes heated with natural gas installed by homeowner	RTF UES
G Storm Window with Natural Gas Heat	High-efficiency storm window replacement for homes heated with natural gas installed by contractor	RTF UES
G Wall Insulation With Natural Gas Heat	Wall insulation for homes heated with natural gas	RTF UES
G Window DIY Replc With Natural Gas Heat	High-efficiency double pane window replacement for homes heated with natural gas installed by homeowner	RTF UES
G Window Replc With Natural Gas Heat	High-efficiency double pane window replacement for homes heated with natural gas installed by contractor	RTF UES
Multifamily G Attic Insulation With Natural Gas Heat	Attic insulation for homes heated with natural gas	RTF UES
Multifamily G Energy Star Certified Insulated Door	Replace door with ENERGY STAR rated door in homes heated with natural gas	RTF UES
Multifamily G Floor Insulation With Natural Gas Heat	Floor insulation for homes heated with natural gas installed by contractor	RTF UES
Multifamily G Sliding Glass Doors with Natural Gas Heat	High efficiency sliding glass door replacement for homes heated with natural gas	RTF UES
Multifamily G Window DIY Replc With Natural Gas Heat	High-efficiency double pane window replacement for homes heated with natural gas installed by homeowner	RTF UES
Multifamily G Window Replc With Natural Gas Heat	High-efficiency double pane window replacement for homes heated with natural gas installed by contractor	RTF UES

The following table summarizes the verified gas energy savings for the Shell Program impact evaluation.

Table 3-19: Shell Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
G Attic Insulation With Natural Gas Heat	25	1,853.46	2,044.74	110.32%
G Energy Star Certified Insulated Door	49	1,634.50	180.16	11.02%
G Floor Insulation With Natural Gas Heat	8	157.24	489.63	311.40%
G Sliding Glass Doors DIY with Natural Gas Heat	5	83.50	70.71	84.68%
G Sliding Glass Doors with Natural Gas Heat	135	2,972.60	2,389.20	80.37%
G Wall Insulation With Natural Gas Heat	6	295.45	438.56	148.44%
G Window DIY Replc With Natural Gas Heat	19	590.30	277.35	46.98%
G Window Replc With Natural Gas Heat	373	18,277.00	15,080.05	82.51%
Multifamily G Attic Insulation With Natural Gas Heat	1	80.34	88.63	110.32%
Multifamily G Energy Star Certified Insulated Door	1	3.40	0.37	11.02%
Multifamily G Floor Insulation With Natural Gas Heat	1	17.60	54.81	311.40%
Multifamily G Sliding Glass Doors with Natural Gas Heat	2	33.40	26.84	80.37%
Multifamily G Window DIY Replc With Natural Gas Heat	1	37.80	17.76	46.98%
Multifamily G Window Replc With Natural Gas Heat	5	60.78	50.15	82.51%
Total	**631**	**26,097.37**	**21,208.97**	**81.27%**

The Shell Program displayed verified savings of 21,208.97 therms with a realization rate of 81.27% against the expected savings for the program. The following table summarizes the incentive and measure costs associated with the program.

Table 3-20: Shell Program Costs by Measure

Measure	Incentive Costs	Measure Costs
G Attic Insulation With Natural Gas Heat	$20,722.88	$76,324.61
G Energy Star Certified Insulated Door	$6,600.00	$177,096.47
G Floor Insulation With Natural Gas Heat	$5,896.36	$18,023.84
G Sliding Glass Doors DIY with Natural Gas Heat	$1,260.00	$6,457.33
G Sliding Glass Doors with Natural Gas Heat	$87,120.00	$881,568.96
G Wall Insulation With Natural Gas Heat	$4,431.75	$9,425.94
G Window DIY Replc With Natural Gas Heat	$6,358.00	$49,459.56
G Window Replc With Natural Gas Heat	$299,837.00	$4,999,067.60
Multifamily G Attic Insulation With Natural Gas Heat	$2,008.50	$5,146.00
Multifamily G Energy Star Certified Insulated Door	$100.00	$1,868.28
Multifamily G Floor Insulation With Natural Gas Heat	$132.00	$6,450.00
Multifamily G Sliding Glass Doors with Natural Gas Heat	$960.00	$3,911.75
Multifamily G Window DIY Replc With Natural Gas Heat	$540.00	$2,862.83
Multifamily G Window Replc With Natural Gas Heat	$3,465.00	$56,041.48
Total	**$439,431.49**	**$6,293,704.65**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Shell Program in the section below.

3.2.6.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Shell Program. The Evaluators selected a random subset of rebate applications to cross-verify tracking data inputs, summarized in Section 2.2.2.4.

The Evaluators reviewed each measure's number of units, square footage, and insulation where available. Not all rebated projects provided sufficient documentation to verify each of the specifications that the Evaluators reviewed such as square footage quantities for windows and sliding glass doors. When square footage was not provided, the Evaluators imputed a square footage of 20 square feet per window and 40 square feet per sliding glass door to apply RTF savings at the square footage level so that RTF deemed savings could be applied.[9,10]

The Evaluators found that verified attic insulation, certified insulated doors, and some window measure savings were lower than expected primarily due to differences in the Avista TRM's application of deemed savings and the RTF UES workbook application of deemed savings. In most cases Avista applies a single savings value to each installed measure regardless of customer location or heating equipment type. In contrast, the RTF differentiates savings by square footage, heating type, R-values (for insulation measures), U-factors (for window measures), and climate zone. The lack of granularity in the Avista TRM data led to a low realization rate for many measures.

3.2.6.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Shell Program. The Evaluators calculated verified savings for the gas measures using the RTF workbook in place at the time the savings goals for the program were finalized. The Evaluators calculated adjusted savings for each measure using the active Avista TRM values and verified tracking data. These UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment.

The Shell Program in total displays a realization rate of 81.27% with 21,208.97 therms verified gas energy savings in the Idaho service territory, as displayed in Table 3-19.

Realization rates deviate from 100% largely due to two factors. First, there is a significant difference in the methods applied by the Avista TRM and the RTF for efficient window, insulated door, and sliding glass door measures. The RTF's deemed savings are estimated at the square-foot unit level, whereas the Avista TRM estimates savings per window or door. This causes significant variance between the two estimates when the unit-energy-savings are scaled by two different quantities. It follows that measures with smaller sample sizes are more vulnerable to this variance, as demonstrated by the low realization rate for the G Sliding Glass Doors DIY with Natural Gas Heat measure. In addition, in the case of insulated doors, the Avista TRM assumed doors yielded savings of 27.3 therms per door while the RTF assigns savings between 0.17 and 0.20 therms per square foot of insulated door. Most sampled doors had relatively small square footage which yielded substantially lower overall verified savings than Avista's ex-ante estimates.

Second, Attic insulation, wall insulation, and floor insulation measures are evaluated at different efficiency tiers depending on the R-value of the pre-existing and newly installed insulation. Many of

[9] Square footage estimate for residential windows are drawn from a Pacific Northwest National Laboratory analysis found here: https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-28809.pdf

[10] Square footage estimate for residential sliding glass doors are drawn from the RTF's SEEM model found here: https://nwcouncil.app.box.com/s/olba73ckvxploqpg024gclydzz38i3xv

these insulation projects display high realization rates because the expected savings were lower than the verified RTF savings associated with the specific change in R-value of the sampled projects. For example, the Avista TRM seems to apply savings of 0.08 therms per square foot of attic insulation while the RTF deemed savings values applied to sampled projects ranged between 0.08 and 0.30 therms per square foot. Similarly, the Avista TRM seems to apply savings of 0.02 therms per square foot and 0.05 therms per square foot for floor and wall insulation, respectively. In contrast, sampled projects had RTF deemed savings estimates of 0.11 therms per square foot and 0.20 therms per square foot for those same two measures. Differentiating insulation measure expected savings by installed R-value and customer location would help Avista's ex-ante estimates align more closely to verified savings estimates in the future.

4. Low Income Impact Evaluation Results

The Low Income Program delivers energy efficiency measures to low-income residential customers in its Idaho service territory with a partnership with five network Community Action Agencies ("Agencies") and one tribal weatherization organization. The Agencies qualify income to prioritize and serve households based on a variety of characteristics. In-house or contract crews install approved program measures. In addition, the Agencies have access to other monetary resources which allow them to weatherize a home or install additional energy efficiency measures.

During PY2025, the Evaluators completed impact evaluations on Avista's Low-Income Program for both the 2024 and 2025 program years. The following sections summarize findings for each gas impact evaluation in the Low-Income Portfolio in the Idaho service territory.

The Evaluators used data collected and reported in the tracking database, online application forms, and RTF values to evaluate verified savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 4-1 summarizes the Low Income expected and verified impact savings by program year.

Table 4-1: Low Income Verified Impact Savings by Program Year

Program Year	Program	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
2024	Low Income	39	1,380.11	1,283.79	93.02%
2025	Low Income	134	3,866.78	3,832.95	99.13%
Total		**173**	**5,246.89**	**5,116.74**	**97.52%**

The Idaho Low Income gas program yielded verified savings of 1,283.79 therms in 2024 and 3,823.95 therms in 2025 for realization rates of 93.02% and 99.13%, respectively. The following table presents low-income incentive and measures costs by program.

Table 4-2: Low Income Costs by Program Year

Program Year	Program	Incentive Costs	Measure Costs
2024	Low Income	186,029.73	167,212.75
2025	Low Income	476,683.88	415,308.52
Total		**662,713.61**	**582,521.27**

4.1 Simple Verification Results

Details on the simple verification conducted for the Low Income program are presented below.

4.1.1 In-Service Rates

The Evaluator conducted a simple participant verification survey for the Low Income Program to calculate in-services rates of installed measures. Due to the limited number of completed surveys (n = 14), responses from both states were aggregated to increase the stability of the verification estimate. Based on this combined dataset, the Evaluators calculated an overall installation verification rate of 93%.

Non-verification responses were concentrated among measures such as air sealing and insulation, which are typically not visible to participants and therefore susceptible to recall error and limited participant awareness of work performed by contractors. Because all Low Income measures are installed through program-delivered services rather than customer-directed installations, the likelihood of true non-installation was assessed to be low. In this context, the observed non-verification is more plausibly attributed to survey measurement error rather than actual deviations from installation requirements.

Given the small sample size, the nature of the measures involved, and the controlled contractor delivery model, the evaluation team determined that the most technically appropriate approach was to treat all Low Income Program measures as fully installed, applying a 100% ISR for the PY2024 and PY2025 evaluation. The survey-derived rate is noted for transparency, but it is not used to downward-adjust measure savings due to the limitations described above.

4.2 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Low Income Sector in the section below.

4.2.1 Low Income Program

The Low Income Program delivers energy efficiency measures to low-income residential customers in its Idaho service territory with a partnership with five network Community Action Agencies ("Agencies") and one tribal weatherization organization. The Agencies qualify income to prioritize and treat households based on several characteristics. In-house or contract crews install approved program measures. In addition, the Agencies have access to other monetary resources which allow them to weatherize a home or install additional energy efficiency measures.

Avista provides CAP agencies with the following approved measure list, which are reimbursed in full by Avista. Avista also provides a rebate list of additional energy saving measures the CAP agencies are able to utilize which are partially reimbursed. Table 4-3 summarizes the measures offered under this program.

Table 4-3: Low Income Program Measures

Measure	Impact Analysis Methodology
G 50 Gallon Natural Gas Water Heater	RTF UES
G Air Infiltration	
G Attic Insulation With Natural Gas Heat	
G Duct Insulation	
G Duct Sealing	
G Exterior Doors	
G Floor Insulation With Natural Gas Heat	
G Health Safety and Repair	
G Natural Gas Furnace	
G Smart Thermostat	
G Storm Windows	
G Tankless Water Heater	
G Wall Insulation With Natural Gas Heat	
G Window Replacement With Natural Gas Heat	

Table 4-4 summarizes the PY2024 verified gas energy savings for the Low Income Program impact evaluation.

Table 4-4: PY2024 Low Income Program Claimed Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
G Air Infiltration	2	24.46	15.63	63.89%
G Attic Insulation With Natural Gas Heat	2	210.60	181.08	85.98%
G Duct Insulation	1	7.00	8.82	125.96%
G Duct Sealing	2	40.34	78.00	193.36%
G Exterior Doors	2	19.32	8.08	41.85%
G Floor Insulation With Natural Gas Heat	1	78.68	51.40	65.33%
G Natural Gas Furnace	14	871.36	735.03	84.35%
G Health Safety and Repair	9	0.00	0.00	N/A
G Tankless Water Heater	1	66.50	60.69	91.27%
G 50 Gallon Natural Gas Water Heater	2	14.10	0.00	0.00%
G Window Replacement With Natural Gas Heat	3	47.75	145.06	303.78%
Total	**39**	**1,380.11**	**1,283.79**	**93.02%**

The Low Income Program displayed verified savings of 1,283.79 therms for the 2024 program with a realization rate of 93.02%. The following table summarizes the incentive and measure costs associated with the program in PY2024.

Table 4-5: PY2024 Low Income Program Claimed Costs by Measure

Measure	Incentive Costs	Measure Costs
G Air Infiltration	$168.92	$3,303.31
G Attic Insulation With Natural Gas Heat	$3,363.75	$3,135.30
G Duct Insulation	$110.40	$96.00
G Duct Sealing	$271.00	$235.65
G Exterior Doors	$1,355.00	$1,178.26
G Floor Insulation With Natural Gas Heat	$1,253.82	$3,171.34
G Natural Gas Furnace	$106,501.09	$92,609.64
G Health Safety and Repair	$55,332.25	$48,114.99
G Tankless Water Heater	$4,188.30	$3,642.00
G 50 Gallon Natural Gas Water Heater	$8,367.15	$7,275.78
G Window Replacement With Natural Gas Heat	$5,118.05	$4,450.48
Total	**$186,029.73**	**$167,212.75**
Total without Health Safety and Repair	**$130,697.48**	**$119,097.76**

Table 4-6 summarizes the PY2025 verified gas energy savings for the Low Income Program impact evaluation.

Table 4-6: PY2025 Low Income Program Claimed Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
G Air Infiltration	13	158.99	101.57	63.89%
G Attic Insulation With Natural Gas Heat	4	414.54	356.43	85.98%
G Duct Insulation	5	49.00	61.72	125.96%
G Duct Sealing	2	40.34	78.00	193.36%
G Exterior Doors	8	96.60	40.42	41.85%
G Floor Insulation With Natural Gas Heat	3	215.74	140.95	65.33%
G Natural Gas Furnace	34	2,116.16	1,785.07	84.35%
G Health Safety and Repair	29	0.00	0.00	N/A
G Tankless Water Heater	4	266.00	242.77	91.27%
G Wall Insulation With Natural Gas Heat	1	58.86	0.00	0.00%
G 50 Gallon Natural Gas Water Heater	16	112.80	0.00	0.00%
G Window Replacement With Natural Gas Heat	15	337.75	1,026.02	303.78%
Total	**134**	**3,866.78**	**3,832.95**	**99.13%**

The Low Income Program displayed verified savings of 3,832.95 therms for the 2025 program with a realization rate of 99.13%. The following table summarizes the incentive and measure costs associated with the 2025 program year.

Table 4-7: PY2025 Low Income Program Claimed Costs by Measure

Measure	Incentive Costs	Measure Costs
G Air Infiltration	$1,097.98	$1,354.32
G Attic Insulation With Natural Gas Heat	$6,132.33	$5,332.46
G Duct Insulation	$772.80	$672.00
G Duct Sealing	$362.98	$716.88
G Exterior Doors	$6,103.00	$5,306.96
G Floor Insulation With Natural Gas Heat	$3,437.97	$2,989.54
G Natural Gas Furnace	$232,046.93	$201,779.94
G Health Safety and Repair	$102,283.29	$88,941.99
G Tankless Water Heater	$21,010.96	$18,270.40
G Wall Insulation With Natural Gas Heat	$846.11	$735.75
G 50 Gallon Natural Gas Water Heater	$55,618.14	$48,363.60
G Window Replacement With Natural Gas Heat	$46,971.39	$40,844.68
Total	**$476,683.88**	**$415,308.52**
Total without Health Safety and Repair	**$374,400.59**	**$326,366.53**

4.2.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators performed a comprehensive review of the Low Income Program tracking database to assess data completeness, accuracy, and consistency. As part of this process, the Evaluators selected a random subset of rebate applications to cross-verify tracking system inputs with submitted project documentation, as summarized in Section 2.2.2.4.

The Evaluators found no duplicate participants in the project data and found that program data appropriately reflected customer rate information.

4.2.1.2 Impact Analysis Savings Verification Findings

This section summarizes the verified savings results for the Low Income Program for PY2024 and PY2025. The Evaluators calculated verified savings for the gas measures using the RTF workbook in place at the time the savings goals for the program were finalized. These RTF UES values were applied to a random sample of participants, with verification of project documents such as rebate applications to verify installation, quantity, and efficiency of the equipment.

The Low Income Program displayed the following savings and realization rates for each project year:

- PY2024: 1,283.79 therms, 93.02% RR
- PY2025: 3,832.95 therms, 99.13% RR

Measure details can be found in Table 4-4 and Table 4-6.

Potential causes of discrepancies between reported and verified savings for the Low Income Program are outlined in the sections below.

Measure Quantity Field Inconsistencies
The measure quantity field in the tracking data was populated inconsistently across measure types. For example, for insulation measures, the quantity represented square footage installed, whereas for other measures, such as furnaces or smart thermostats, the field represented count of units or projects installed.

To support future evaluations and ensure data clarity, the Evaluators recommend that the tracking system include separate, measure-specific data fields (e.g., “Installed Area (sq ft),” “Quantity Installed,” “Units per Project”) to reduce ambiguity and improve data usability.

Manufactured and Multifamily Home Treatment
In cases where RTF savings methodologies do not provide measure-specific savings values for Manufactured or Multifamily homes, the Evaluators applied Single Family savings values.

Exterior Door Assumptions
The tracking database did not include the square footage of replacement exterior doors. To complete the savings calculations, the Evaluators assumed an average replacement door area of 20 square feet per project, based on typical residential door dimensions.

Storage Tank Water Heater Savings
RTF guidelines require that storage tank water heaters be ENERGY STAR certified in order to claim savings. During the sample review, all three sampled projects were found to have installed a non-ENERGY STAR unit. Because the equipment did not meet RTF eligibility requirements, these projects did not yield savings leading to zero savings being applied to the population of storage water heaters.

Window Measure Data Gaps
RTF savings methodologies for windows require identification of installed window type. Because the tracking data only listed the pre-existing window type, the Evaluators applied a conservative assumption framework when assigning savings.

5. Non Residential Impact Evaluation Results

The Evaluators completed an impact evaluation on Avista's Non Residential portfolio to verify program-level and measure-level energy savings for PY2025. The following sections summarize findings for each gas impact evaluation in the Non Residential Portfolio in the Idaho service territory. The Evaluators used data collected and reported in the tracking database, online application forms, Avista TRM, RTF, IPMVP-approved analyses, and supplemental sources to evaluate savings. This approach provided the strongest estimate of achieved savings practical for each program, given its delivery method, magnitude of savings, number of participants, and availability of data. Table 5-1 summarizes the Non Residential verified impact savings by program.

Table 5-1: Non Residential Verified Impact Savings by Program

Program	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Non Residential Midstream	79	28,201.96	28,136.73	99.77%
Non Residential Shell	2	628.42	168.53	26.82%
Site Specific - Other	2	3,003.00	2,838.00	94.51%
Total	**83**	**31,833.38**	**31,143.27**	**97.83%**

Non Residential program incentive and measure costs are presented in the following table. Measure costs were not presented in the Non Residential midstream program tracking data and as such they were assumed to be identical to incentive costs.

Table 5-2: Non Residential Costs by Program

Program	Incentive Costs	Measure Costs
Non Residential Midstream	$106,564.00	$106,564.00
Non Residential Shell	$5,909.12	$7,400.00
Site Specific - Other	$10,508.75	$127,565.51
Total	**$122,981.87**	**$241,529.51**

In PY2025, verified energy savings of 31,143.27 therms were identified for Avista's non-residential gas measures in Idaho. All programs except for the Non Residential Shell program had realization rates between 95% and 100%. The Non Residential Shell program meanwhile had savings of 26.82% based on engineering equation calculations. Across all Non Residential programs the Evaluators calculated a 97.83% realization rate.

5.1 Database & Document Verification

Before conducting the impact analyses, the Evaluators conducted a database review for all prescriptive programs. This process began with the selection of representative samples from each program. The Evaluators developed a sampling plan that achieves a sampling precision of ±10% at 90% statistical confidence – or "90/10 precision" – for document verification. Details about sampling methods can be found in 2.2.1 Database Review and details about the verification process can be found in Section 2.2.2.4. The Evaluators reviewed both tracking data and additional documentation materials to identify any typos, duplicates, or other data concerns that might affect the verified savings analysis. Information

on the sample sizes reviewed as a part of the database and document verification process can be found in the Sampling Methodology for Most Programs section above.

The Evaluators did not conduct survey verification for Idaho non-residential gas measures as a part of the process evaluation. Instead, the Evaluators relied on database and documentation verification and applied 100% in-service rates to non-residential gas measures.

5.2 Program-Level Impact Evaluation Results

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Non Residential sector in the section below.

5.2.1 Non Residential Midstream Program

Avista designed the Midstream Program to shift the onus of applying for rebates from end-use customers to distributors. Not only does this reduce customers'/contractors' administrative burden (i.e., no need to submit paperwork tracking energy efficient installations), but it is also anticipated to increase high-efficiency equipment options at competitive prices. Midstream rebates provide an immediate discount on eligible products, which appear as a line item on customer invoices. Starting on July 1, 2024, the Midstream Program replaced Avista's residential and commercial downstream space-heating and water-heating programs as well as the commercial food service equipment rebate program.

Through the Midstream Program, Avista seeks to achieve three overall objectives:

- Provide greater long-term, cost-effective savings for residential and commercial customers alike
- Reduce Avista's administrative burden in processing space-heating, water-heating, and commercial kitchen equipment applications
- Accelerate the market transformation of energy-efficient equipment

The Midstream Program provides bought-down equipment to both residential and non-residential customers. This chapter discusses and presents results only for non-residential measures. Table 5-3 summarizes the measures available to be rebated in PY2025 under this program.

Table 5-3: Non Residential Midstream Program Measures

End Use	Measure	Impact Analysis Methodology
Food Service	Combination Oven	Avista TRM (per RTF Combination Ovens)
	Convection Oven	Avista TRM (per RTF Convection Ovens)
	Demand Control Kitchen Ventilation	Avista TRM
	Dishwasher	Avista TRM (per ENERGY STAR CFS Calculator)
	Fryer	Avista TRM
	Griddle	Avista TRM (per RTF Griddles)
	Hot Food Holding Bin	Avista TRM (per CA eTRM HFHB)
	Hot Food Holding Cabinet	RTF HFHC
	Ice Machine	Avista TRM (per RTF Ice Machines)
	Rotisserie Oven	Avista TRM (per CA eTRM Rotisserie Ovens)
	Steamer	Avista TRM (per RTF Steamers)
HVAC	Boiler	Avista TRM (per RTF Commercial Boilers)
	Furnace	Avista TRM (per billing analysis)
	Mini/Multi Split	Avista TRM (per engineering algorithm)
	Packaged Unitary Equipment	Avista TRM (per engineering algorithm)
	Split Unitary Equipment	Avista TRM (per engineering algorithm)
	Water Source Heat Pump	Avista TRM (per engineering algorithm)
Water Heating	Heat Pump Water Heater	Avista TRM (per RTF HPWH)
	Instantaneous Water Heater	Avista TRM (per RTF Gas Water Heaters)
	Storage Water Heater	Avista TRM (per RTF Gas Water Heaters)
Other	Ultra-Low Temperature Freezer	Avista TRM (per CA eTRM Ultra Low Temp Freezers)

The following table summarizes the verified gas energy savings for the Midstream Program impact evaluation.

Table 5-4: Non Residential Midstream Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Boiler	3	6,318.56	6,318.56	100.00%
Fryer	3	2,443.00	2,443.00	100.00%
Furnace	52	5,885.13	5,885.13	100.00%
Instantaneous Water Heater	3	787.51	722.29	91.72%
Storage Water Heater	18	12,767.75	12,767.75	100.00%
Total	**79**	**28,201.96**	**28,136.73**	**99.77%**

The following table summarizes the incentive and measure costs associated with the program. Of note, no complete measure cost information outside of incentive costs was included in the tracking data provided, and as such the Evaluators have assumed incentive costs are identical to overall measure costs.

Table 5-5: Non Residential Midstream Program Costs by Measure

Measure	Measure Unit Count	Incentive Costs	Measure Costs
Boiler	4.00	$27,000.00	$27,000.00
Fryer	7.00	$7,350.00	$7,350.00
Furnace	55.00	$35,500.00	$35,500.00
Instantaneous Water Heater	3.00	$1,791.00	$1,791.00
Storage Water Heater	24.00	$34,923.00	$34,923.00
Total	**93.00**	**$106,564.00**	**$106,564.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Midstream Program in the section below.

5.2.1.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Midstream Program. Due to the program delivery pathway, the Program does not include project applications. For this program, the Evaluators examined a representative sample of projects to ensure that program tracking data accurately reflected measure characteristics used in assessing savings. Data points checked include equipment configurations, capacities and efficiency levels. The Evaluators found all rebate equipment met or exceeded the measure efficiency requirements for the Midstream Program and minimal equipment specifications differed from those in the tracking data. Furthermore, no duplicates were identified in the tracking data.

5.2.1.2 Impact Analysis

Once verification was completed, to estimate program savings for these measures the Evaluators reviewed and applied the appropriate Avista TRM values to assign verified savings to each of the midstream measures. As highlighted in the Impact Evaluation Methodology section above, across 2024 and 2025 the Evaluators have collaborated with Avista to review and verify the methodologies used to develop the midstream section of Avista's TRM. For measures not included in the TRM, the Evaluators referenced a relevant RTF workbook to identify appropriate verified savings values. Savings values are specific to installed equipment efficiency and configuration.

5.2.1.3 Verified Savings

The verified savings for the program are 28,136.73 therms with a realization rate of 99.77%. All measures except for instantaneous water heaters had realization rates of 100%, suggesting excellence consistency in ex-ante and ex-post savings methodologies. Below, the Evaluators discuss the instantaneous water heater measure:

- **Instantaneous Water Heaters:** Two of the three sampled instantaneous water heaters had a uniform energy factor (UEF) of 0.93, per model specifications, while expected savings calculations seemed to have assumed a UEF of 0.95. This difference in UEF contributed to the 91.72% realization rate for the measure.

5.2.2 Non Residential Shell Program

The Non Residential Non Residential 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.

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. 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 5-6 summarizes the measures rebated in PY2025 under this program.

Table 5-6: Non Residential Shell Program Measures

Measure	Impact Analysis Methodology
Attic Insulation	Illinois TRM v12.0 Section 4.8.2

The following table summarizes the verified gas energy savings for the Non Residential Shell Program impact evaluation.

Table 5-7: Non Residential Shell Program Verified Gas Savings

Measure	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Attic ≤ R11 to R45 +	2	628.42	168.53	26.82%
Total	**2**	**628.42**	**168.53**	**26.82%**

The following table summarizes the incentive and non-incentive costs associated with the program.

Table 5-8: Non Residential Shell Program Costs by Measure

Measure	Square Footage Installed	Incentive Costs	Measure Costs
Attic ≤ R11 to R45 +	5,234.00	$5,909.12	$7,400.00
Total	**5,234.00**	**$5,909.12**	**$7,400.00**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Non Residential Shell Program in the section below.

5.2.2.1 Database Review & Document Verification

Before conducting the impact analysis, the Evaluators conducted a database review for the Non Residential Shell Program. The Evaluators review all rebate applications to cross-verify tracking data inputs, summarized in Section 2. Data points checked between project applications and program tracking data include R-levels, square footage of installation, HVAC configuration and measure cost values. Below, Table 5-9 shows the project population, the number of projects checked and the overall precision.

Table 5-9: Non Residential Shell Program Verification Precision

Population	Sampled	Precision
2	2	0.0%

All gas projects provided in the program tracking data matched data verified in the rebate application, and no adjustments to any savings algorithm inputs were necessary. The Evaluators found all rebate equipment met or exceeded the measure efficiency requirements for the Non Residential Shell Program.

5.2.2.2 Impact Analysis

This section summarizes the verified savings results for the Non Residential Shell Program. The Evaluators calculated verified savings for the insulation measures using the Illinois TRM v12.0 Section 4.8.2[11]. The Illinois TRM was selected because it provides engineering algorithms to calculate savings for commercial roof insulation and commercial wall insulation measures. To estimate savings for attic insulation measures, the Evaluators applied the algorithm for commercial roof insulation.

The savings algorithms for attic insulation required weather inputs and HVAC equivalent full load hours for various building types. The Evaluators calculated weather inputs in accordance with the Illinois TRM for weather stations in Sandpoint, ID. Equivalent full load heating hours by building type were drawn from Idaho Power TRM v3.2[12].

Illinois TRM v12.0 Section 4.8.2 provides the following equation to estimate roof insulation savings:

$$\Delta Therms = \left(\frac{1}{R_{existing}} - \frac{1}{R_{new}}\right) \times \frac{Area \times EFLH_{heating} \times \Delta T_{FL,heating}}{100{,}000 \times \eta_{heating}}$$

Where:

- $R_{existing}$ = R-value of the existing insulation
- R_{new} = R-value of the installed insulation
- $Area$ = Surface Area of the insulated roof in square feet
- $EFLH_{heating}$ = Equivalent Full Load Cooling Hours in the Building
- $\Delta T_{FL,heating}$ = Temperature difference during heating season using a 55° F temperature setpoint
- $100{,}000$ = Conversion from BTUs to Therms
- $\eta_{heating}$ = Efficiency of existing furnace, assumed to be 0.78

5.2.2.3 Verified Savings

The verified savings for the program are 168.53 therms with a realization rate of 26.82%, as displayed in Table 5-7. Avista's expected savings seem to have been calculated using a different methodology than the Evaluators. Avista's methodology seems to assume substantially higher gas savings for attic insulation. In addition, the Evaluators calculated gas savings using an engineering equation with weather inputs specific to Sandpoint, ID. The integration of actual 2025 weather data into the verified analysis likely contributed to lower savings values than generalized estimates used by Avista for expected savings.

[11] https://www.ilsag.info/wp-content/uploads/IL-TRM-Version-12.0-Volumes-1-4-Compiled-Final.pdf

[12] https://docs.idahopower.com/pdfs/EnergyEfficiency/Reports/2020TRM.pdf

5.2.3 Site Specific Program

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 non-residential gas offerings. The program approach strives for a flexible response to energy efficiency projects that have demonstrable therms savings within program criteria. The majority of site-specific therms 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 gas customers and typically brings in the largest portion of savings to the overall energy efficiency portfolio.

The following table summarizes the verified gas energy savings for the Site-Specific Program impact evaluation.

Table 5-10: Site-Specific Program Verified Gas Savings

Type of Project	Project Count	Expected Savings (therms)	Verified Savings (therms)	Realization Rate
Non-Lighting	2	3,003.00	2,838.00	94.51%
Total	**2**	**3,003.00**	**2,838.00**	**94.51%**

The Site-Specific Program displayed verified savings of 2,838.00 therms with a realization rate of 94.51% against the expected savings for the program.

Table 5-11: Site-Specific Program Costs

Type of Project	Incentive Costs	Measure Costs
Non-Lighting	$10,508.75	$127,565.51
Total	**$10,508.75**	**$127.565.51**

The Evaluators summarize the program-specific and measure-specific impact analysis activities, results, conclusions, and recommendations for the Site-Specific Program in the section below.

5.2.3.1 Sample Design

In the Site Specific PY2025 evaluation, the Evaluators sampled and reviewed the full population of Idaho gas programs. As such, no sample design was required as all programs were reviewed and analyzed for savings. This means that this evaluation had a 0.00% precision at 90% confidence (well below the industry-standard 90/10 precision goal).

5.2.3.2 Project Document Review

Once representative projects were selected, the Evaluators obtained all project-related documentation for review. These documents typically included equipment specification sheets, building characteristics, calculators, invoices, project photos and trending data. This information allowed the Evaluators to replicate claimed savings estimates and develop M&V plans to be used in assessing verified savings and

collecting on-site data. Using project-specific M&V plans, the Evaluators visited sampled to verify measure installation and operating parameters, as well as building parameters such as square footage and HVAC configurations.

5.2.3.3 Impact Approaches

The Evaluators employed IPMVP Option A-C approaches to calculated verified savings associated with the Site Specific programs. Evaluators selected the most appropriate IPMVP-approved methodology based on available data, the percentage of facility savings associated with the installed measure, and the complexity of the energy efficiency equipment installed.

5.2.3.4 Site-Level Realization

Verified savings were developed for each sampled site. The realization rates for sites within each stratum are normally applied to the non-sampled sites within their respective stratum but the sample population included all Idaho Gas projects and as a result all site analysis are shown below.

Table 5-12: Site-Specific Expected, Adjusted and Verified therms Savings by Project

Project ID	Expected therms Savings	Verified therms Savings	Realization Rate
SSOP_136051	2,607.00	2,615.00	100.31%
SSOP_157240	396.00	223.00	56.31%
Totals:	**3,003.00**	**2,838.00**	**94.51%**

The overall PY2025 Site-Specific Program in total displays a total of 2,838.00 therms verified gas energy savings in the Idaho service territory, as displayed in Table 5-12.

5.2.3.5 Discussion of Non-100% Realization in Sampled Projects

Below are brief explanations of differences between claimed and verified savings for projects with realization rates that are not 100%.

- **SSOP_157240 –** The energy savings calculation information provided utilized an engineering methodology that could not be reversed engineered with the given documentation. Initially, the Evaluators proceeded to conduct a billing analysis utilizing the available site billing data. The billing data provided only covered a few months of the reporting period, resulting in a poor predictive model. Therefore, a deemed value of 0.62 therms per square foot of window from the *Idaho TRM v3.2 for Efficient Windows* was applied to calculate savings. This model yielded a realization rate of 56.31% for therms consumption.
- **SSOP_136051 –** The energy savings calculation information provided utilized an engineering methodology that could not be reversed engineered with the given documentation. Therefore, the Evaluators proceeded to conduct a billing analysis utilizing the available site billing data. This model yielded a realization rate of 100.31% for therms consumption.

6. Appendices

6.1 Appendix A: Billing Analysis Results

This appendix provides additional details on the billing analyses conducted for each program. A billing analysis was completed for measures that had at least 75 customers with single-measure installations. This ensured that measures would have a sufficient sample size after applying PSM data restrictions (e.g. sufficient pre- and post-period data). Analyses were run focusing specifically on the Idaho service territory. The billing analysis on individual measures resulted in statistically significant gas impacts for the natural gas furnace measure that is currently implemented as a part of the Residential Midstream Program. The following section describes the analysis.

6.1.1 Natural Gas Furnace

The results of the billing analysis for the natural gas furnace measure are provided below. The Evaluators identified 1001 customers who had only installed gas furnace energy efficiency measures between 2023 and April 1, 2025 and included these customers in a treatment cohort to identify the natural gas savings associated with furnace installation in Avista's Idaho service territory.

The Evaluators were successful in creating a matched cohort for the furnace measure with sufficient participation. Customers were matched on zip code and their average pre-period seasonal usage, including summer, fall, winter, and spring for each control and treatment household. The Evaluators were provided a considerable pool of control customers to draw upon. The Evaluators conducted propensity score matching (PSM) with replacement to match treatment customers to non-participant control customers to develop cohorts with statistically similar pre-period energy usage.

The Evaluators performed three tests to determine the success of PSM:

1. *t*-test on pre-period usage by month
2. Joint chi-square test to determine if any covariates are imbalanced
3. Standardized difference test for each covariate employed in matching

All tests confirmed that PSM performed well for each measure. After PSM, t-tests displayed no more than 2 months with significantly different energy usage at the 95% alpha indicating treatment and control pre-period energy usage were statistically similar.

The table below provides annual savings per customer and verified program savings for the Home Energy Audit Program for the PPR model. Treatment customers included in the billing analysis participated in this measure only, and therefore no double-counted savings from other programs need to be accounted for. The total measure savings was thus verified to be 78,138.06 therms saved annually for treatment customers specifically included in the regression analysis, or 10.59% of annual gas household consumption.

Table 6-1: Regression Savings, Natural Gas Furnace

Annual Savings per Customer (therms)	Treatment Customers	Program Verified Savings (therms)	Regression Estimate p-value	Adjusted R-Squared	Model
78.06	1,001	78,138.06	<0.000	0.876	PPR

6.2 Appendix B: Site Specific M&V Plans

6.2.1 Site Specific M&V Plans

6.2.1.1 SSOP_136051 Schweitzer Mt Residential

Summary

This facility is a ski resort residential lodging that performed a snow melt boiler retrofit.

Special On-Site Equipment

Camera

Data Collection

- Verify installation of new equipment.
- Verify efficiency of the new equipment.
- Collect natural gas billing data.
    - June 2023 to May 2024 for the baseline period.
    - June 2024 and on for the performance period.

EEM Verification

Number of Units	Name	Efficiency
3	Lochinvar 399 kBtu Boilers	95%

Appendix C: 2025 Cost-Effectiveness Tables

Electric Portfolio

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$26,734,655	$23,820,458	1.12
Utility Cost Test (UCT)	$26,734,655	$19,039,212	1.40
Participant Cost Test (PCT)	$42,092,287	$20,138,877	2.09
Ratepayer Impact (RIM)	$26,734,655	$21,535,882	1.24

ELECTRIC PORTFOLIO (WITHOUT LOW-INCOME)

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$26,550,340	$22,927,977	1.16
Utility Cost Test (UCT)	$26,550,340	$18,036,906	1.47
Participant Cost Test (PCT)	$41,065,970	$19,406,702	2.12
Ratepayer Impact (RIM)	$26,550,340	$20,523,569	1.29

Commercial/Industrial

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$23,083,221	$18,131,300	1.27
Utility Cost Test (UCT)	$23,083,221	$16,337,239	1.41
Participant Cost Test (PCT)	$36,707,090	$15,417,930	2.38
Ratepayer Impact (RIM)	$23,083,221	$18,638,323	1.24

Residential

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$3,467,119	$4,796,677	0.72
Utility Cost Test (UCT)	$3,467,119	$1,699,667	2.04
Participant Cost Test (PCT)	$4,358,880	$3,988,771	1.09
Ratepayer Impact (RIM)	$3,467,119	$1,885,246	1.84

Low Income

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$184,315	$892,480	0.21
Utility Cost Test (UCT)	$184,315	$1,002,306	0.18
Participant Cost Test (PCT)	$1,026,316	$732,175	1.40
Ratepayer Impact (RIM)	$184,315	$1,012,313	0.18

Gas Portfolio

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$1,892,976	$2,937,888	0.64
Utility Cost Test (UCT)	$1,892,976	$2,254,067	0.84
Participant Cost Test (PCT)	$3,700,568	$2,491,413	1.49
Ratepayer Impact (RIM)	$1,892,976	$2,372,664	0.80

GAS PORTFOLIO (WITHOUT LOW-INCOME)

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$1,847,974	$2,499,289	0.74
Utility Cost Test (UCT)	$1,847,974	$1,754,093	1.05
Participant Cost Test (PCT)	$3,178,882	$2,076,104	1.53
Ratepayer Impact (RIM)	$1,847,974	$1,870,454	0.99

Commercial/Industrial

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$224,764	$440,627	0.51
Utility Cost Test (UCT)	$224,764	$288,827	0.78
Participant Cost Test (PCT)	$347,746	$274,782	1.27
Ratepayer Impact (RIM)	$224,764	$306,987	0.73

Residential

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$1,623,210	$2,058,662	0.79
Utility Cost Test (UCT)	$1,623,210	$1,465,266	1.11
Participant Cost Test (PCT)	$2,831,136	$1,801,322	1.57
Ratepayer Impact (RIM)	$1,623,210	$1,563,467	1.04

Low Income

Cost-Effectiveness Test	Benefits	Costs	Benefit/Cost Ratio
Total Resource Cost (TRC)	$45,002	$438,599	0.10
Utility Cost Test (UCT)	$45,002	$499,974	0.09
Participant Cost Test (PCT)	$521,686	$415,309	1.26
Ratepayer Impact (RIM)	$45,002	$502,209	0.09

Appendix D: 2025 Expenditures by Program

Program	Electric	Natural Gas	Total
Energy Efficiency			
Low-Income/CEEP			
Low Income	$ 842,002	$ 476,684	$ 1,318,685
Residential			
Appliances	$ 45,553	$ 29,194	$ 74,747
ENERGY STAR Homes	$ 12,000	$ 1,200	$ 13,200
Fuel Conversion	$ 26,100	$ -	$ 26,100
Home Energy Audit	$ -	$ -	$ -
Home Insulation Program	$ 8,754	$ -	$ 8,754
Residential Midstream	$ 560,250	$ 738,100	$ 1,298,350
Residential Shell	$ 239,105	$ 439,431	$ 678,536
Commercial/Industrial			
Building Operator Certification	$ -	$ -	$ -
Green Motors	$ 1,400	$ -	$ 1,400
Grocer	$ 300	$ -	$ 300
Non Residential Midstream	$ 74,140	$ 106,564	$ 180,704
Prescriptive Lighting	$ 835,378	$ -	$ 835,378
Small Business Lighting	$ 10,726,872	$ -	$ 10,726,872
Non Residential Shell	$ 13,883	$ 5,909	$ 19,793
Site Specific - Lighting	$ 19,640	$ -	$ 19,640
Site Specific - Other	$ 1,952,256	$ 10,509	$ 1,962,765
Energy Efficiency Total	**$ 15,357,632**	**$ 1,807,592**	**$ 17,165,224**
Market Transformation			
Northwest Energy Efficiency Alliance	$ 885,395	$ 241,374	$ 1,126,769
Market Transformation Total	**$ 885,395**	**$ 241,374**	**$ 1,126,769**
Other Programs and Activities			
Demand Response	$ 15,207	$ -	$ 15,207
Education	$ 65,240	$ 7,249	$ 72,488
EM&V/CPA	$ 294,474	$ 242,168	$ 536,642
General Implementation	$ 1,863,208	$ 162,092	$ 2,025,300
Labor	$ 1,615,360	$ 261,827	$ 1,877,187
Marketing	$ 137,773	$ 15,308	$ 153,081
Pilot	$ 37,153	$ 98	$ 37,251
Previous Year Adjustment	$ (2,726)	$ (3,061)	$ (5,786)
Other Programs and Activities Total	**$ 4,025,689**	**$ 685,680**	**$ 4,711,369**
Grand Total*	**$ 20,268,716**	**$ 2,734,646**	**$ 23,003,362**

Appendix E: 2025 Energy Efficiency Activity by Program

Energy Efficiency Program	Electric				Natural Gas			
	Participants		Evaluated Savings (kWh)	Utility Cost	Participants		Evaluated Savings (Therms)	Utility Cost
Low-Income								
Weatherization	55	Homes	25,880	$ 171,460	51	Homes	1,805	79,408
HVAC	43	Units	116,232	$ 750,251	34	Units	1,785	$ 240,667
Water Heat	-	Units	-	$ -	20	Units	243	$ 77,616
Lighting	2	Units	-	78	-	NA	-	$ -
Health and Safety	24	HHS	-	$ 80,517	29	HHS	-	$ 102,283
Energy Star Refrigerator	-	Units	-	$ -	-	NA	-	$ -
Low-Income Total	**124**		**142,112**	**$ 1,002,306**	**134**		**3,833**	**$ 499,974**
Appliances	569	Units (Measures)	26,382	$ 50,261	283	Units (Measures)	4,123	$ 31,648
ENERGY STAR Homes	12	Homes	44,243	$ 34,617	2	Homes	301	$ 1,939
Fuel Conversion	11	Units (Measures)	82,406	$ 50,948	-	Units (Measures)	-	$ -
Home Energy Audit	108	Homes	86,914	$ 2,512	190	Homes	-	$ -
Home Insulation Program	8	Units (Measures)	11,436	$ 14,600	-	NA	-	$ -
Residential Midstream	1,147	Units (Measures)	2,234,477	$ 1,231,137	1,891	Units (Measures)	142,775	$ 940,157
Residential Shell	234	Homes	149,624	$ 315,592	631	Homes	21,209	$ 491,521
Residential Total	**2,089**		**2,635,482**	**$ 1,699,667**	**2,997**		**168,408**	**$ 1,465,266**
Building Operator Certification	1	Units (Measures)	119,000	$ 2,484	-	Projects	-	$ -
Green Motors	2	Projects	7,625	$ 1,820	-	NA	-	$ -
Grocer	1	Projects	2,919	$ 408	-	Projects	-	$ -
Commercial/Industrial Midstream	69	Projects	163,691	$ 91,513	79	Projects	28,137	$ 259,332
Prescriptive Lighting	471	Projects	3,900,750	$ 1,159,206	-	NA	-	$ -
Small Business Lighting	1,924	Motor Rewind	18,962,969	$ 12,225,641	-	NA	-	$ -
Commercial/Industrial Shell	2	Projects	10,121	$ 14,658	2	Projects	169	$ 6,927
Site Specific	15	Projects	9,511,607	$ 2,841,509	2	Projects	2,838	$ 22,568
C &I Total	**2,485**		**32,678,682**	**$ 16,337,239**	**83**		**31,143**	**$ 288,827**
Energy Efficiency Total	**4,698**		**35,456,276**	**$ 19,039,212**	**3,214**		**203,384**	**$ 2,254,067**

Appendix F: NEEA 2025 Annual Savings Report – Electric

Memorandum

March 30, 2026

TO: Nicole Hydzik, Director of Energy Efficiency, Avista Idaho; Amber Gifford, DSM Planning & Analytics Manager, Avista Idaho; Carlos Limon, DSM Engineer, Avista Idaho; Meghan Pinch, Manager of Energy Efficiency Programs, Avista Idaho; Kim Boynton, Manager of Planning and Analytics, Avista Idaho; Reuben J Arts, Distribution Operations Manager, Avista Idaho

CC: Becky Walker, Chief Program Officer; Stephanie Rider, Director, Portfolio Management, Reporting & Data Analytics; Nathan Martinez, Director, Market Analytics, Research and Evaluation; Virginia Mersereau, Vice President, Corporate Strategy, Relationships and Communications

FROM: Christina Steinhoff, Principal Analysis Manager

SUBJECT: 2025 Annual Savings Report

NEEA is an alliance of utilities and energy efficiency organizations with a purpose to pool resources and share risks to transform the market for energy efficiency to the benefit of all consumers in the Northwest. NEEA works with all parts of the market to deliver energy efficiency to Northwest consumers by:

- Gathering and analyzing data to inform, market transformation efforts, regional power planning and utility programs.
- Leveraging its relationships with mid and upstream market actors like manufacturers and retailers to influence their business practices by making the case for efficiency.
- Improving how products are tested and perform in real life applications.

These long-term efforts transform markets by making more efficient products and options available to consumers and businesses, leading to energy savings in Avista Idaho's service territory.

Avista Idaho has requested NEEA to provide an estimate of these savings. This memo provides final savings estimates for 2025, an update to the preliminary estimates provided in February, and some highlights of NEEA's work supporting current and future savings streams. The Appendix contains information about the estimation approach. Additional details by program and measure are included in the attached spreadsheet.

Please contact Christina Steinhoff, Principal Analysis Manager, at csteinhoff@neea.org with any questions about this report.

Final 2025 Savings Estimate Summary

NEEA's estimate of Avista Utilities' Idaho 2025 annual electric energy savings associated with NEEA's initiatives is **0.78 aMW (**Table 1). These values net out an estimate of savings claimed through Avista Idaho's programs.

Table 1: 2025 Final Annual Report Savings Estimates (aMW)

	Idaho
Total	0.78
Residential	0.34
Industrial	0.04
Commercial	0.39
Agriculture	0.01

Notes: These are site-based, first year electric savings. Net Market Effects = Total Regional Savings-Local Program Savings-Baseline Savings.[1] To calculate the savings, NEEA removes an estimate of savings from naturally occurring adoption based on baseline trends in the Northwest, and an estimate of savings reported through Avista Utilities' Idaho local incentive programs (Appendix).

Updates to the 2024 Estimates

NEEA updates historical savings estimates based on new data. The 2024 savings decreased by 0.03 aMW primarily because NEEA updated its approach to allocate regional savings from Heat Pump Water Heater installs based on results from the most recent code compliance studies. NEEA estimates the savings for heat pump water heaters installed in new and existing construction separately to account for variations in building energy codes by state. The state-level compliance studies provide estimates of the share of these installations that are going into new construction by state. NEEA then uses zip-code-level shipment data from distributors to allocate the remaining shipments to Idaho service territories. The incorporation of the compliance studies showed a larger share of the shipments were going into Washington new construction homes than previously estimated, leading to a decrease in savings allocated to Idaho. NEEA believes the current estimation could be understating units in Avista's territory and will review additional data sources for above-code activity to refine this value in 2026. NEEA also updated the new

[1] Net Market Effects is savings above the Naturally Occurring Market Baseline established at the start of a program, net of utility program savings. Total Regional Savings is an estimate of savings since NEEA's market intervention began for the associated program.

construction estimates for both residential and commercial new construction based on revisions from Dodge Analytics and the Department of Housing and Urban Development and will continue to track these updates annually.

2025 Highlights

NEEA collaborates with stakeholders across the Northwest and nationally to advance the adoption of energy efficient technologies. Work includes:

- Data collection, research, and analysis
- Product development and testing
- Market implementation

These efforts help bring higher efficiency products and services to market, ultimately benefiting consumers and businesses, and generating energy efficiency savings. Below are key highlights for 2025.

Data collection, research, and analysis

Building Stock Assessments

NEEA has five regional studies that hit milestones in 2025. The data collection phase of the 2025 Commercial Building Stock Assessment finished, and the study began developing data and reporting deliverables that will be posted on neea.org in the first half of 2026. The Home Energy Metering Study and Commercial Energy Metering Study both finished metering and deinstalled most meters. The study will now focus on analyzing the data and sharing key insights. The Motor-System Stock Assessment selected and onboarded two firms and began study-design and planning work. Lastly, NEEA formed the 2027 Residential Building Stock Assessment working group and with their input developed a request for proposals document that will be released at the beginning of 2026.

Market Data and Research

NEEA's Market Research and Evaluation team managed nearly 40 third-party research and evaluation studies to support alliance Market Transformation programs, building codes, and new product standards work, as well as NEEA's special project work in end use load flexibility and whole building/building performance standards. The team led work on eight program market progress evaluations in 2025, including for two Commercial HVAC programs, the Extended Motor Products – Pumps, Luminaire Level Lighting Controls, Heat Pump Water Heaters, Retail Product Portfolio, and Advanced Heat Pump programs, as well as for NEEA's building energy codes work. These mixed-method, longitudinal evaluations are instrumental to understanding the market opportunity for these measures and for tracking NEEA's progress toward its Market

Transformation goals. In addition, the team managed work on four projects that measured compliance with updated building energy codes in Idaho, Montana, and Oregon. These projects, along with the codes' market progress evaluation and a review of NEEA's approach for developing counterfactual baselines for state energy codes, provide the market with valuable information on the market's response to code changes, informs strategy, and supports evaluation of NEEA and its partners' influence on building energy codes.

Data Processing

NEEA brought retail data processing in-house, providing greater visibility, flexibility, and more detail in the resulting market insights. The dataset includes retail sales from four large retailers and covers both qualifying and non-qualifying ENERGY STAR products, including clothes washers, clothes dryers, heat pump water heaters, and refrigerators.

NEEA also completed development of a data pipeline to estimate market share of ENERGY STAR v9 televisions and continues to make improvements to model-matching over time. NEEA commissioned a third-party review of the savings calculation method and other key assumptions for televisions. This review helped refine the work in some key areas and provided third-party validation of the methods NEEA developed. This report will be published in early 2026.

Product Development and Testing

Emerging Technology

NEEA's emerging tech team routinely scans for, assesses, and reports on the potential for newly identified efficient products, services, and practices. Once opportunities are identified, NEEA works with manufacturers to encourage creating products that meet regional needs and truly save energy. As a regional organization, NEEA focuses on opportunities that have broad benefits across the four Northwest states, including places that have unique barriers and opportunities for efficiency, such as rural markets and colder climates. By working together and aggregating investment, NEEA's funders and stakeholders share both the cost and the risks associated with bringing new energy efficient technology to markets.

In 2025, the emerging technology program conducted research across a wide range of product groups including:

- **Consumer Products**
    - ENERGY STAR drew heavily from NEEA's Advanced Water Heating Specification to create the final test method for Central Heat Pump Water Heater Systems.

- NEEA identified improvements to refrigerator test methods that will better account for energy saving features included in the newest generation refrigerators. NEEA will use this information to influence future test procedures.
- Field research into current laundry usage patterns began in 2025 with a planned publication date in Q2 of 2026. This research also includes an analysis of test methods that may simplify and reduce the cost of maintaining a qualified products list for efficient dryers. Findings from field research will allow the Regional Technical Forum to update dryer measures with more current assumptions, expected in Q3 of 2026.
- NEEA explored the energy efficiency potential of heat pump commercial tumble dryers via lab investigations to assess performance, cost-effectiveness evaluations for hotel expenditures, and estimates of regional and national energy savings.[2] Study findings revealed key insights into commercial tumble dryer efficiency and identified opportunities for further research tailored to the hotel industry's needs as well as the broader market. Additionally, findings will support manufacturers in refining commercial dryer product designs to better serve the U.S. market. Finally, NEEA plans to continue its collaboration with the commercial tumble dryer manufacturer to support design adjustments that can enhance the performance of current models.
- NEEA is piloting a Northwest online marketplace. The site provides a one-stop shop for efficient products, customized for Avista Idaho's customers. The platform includes EcoFinancing along with an Energy Score to help shoppers quickly identify efficient options when they need to replace their appliances quickly.

- **HVAC**
  - NEEA started a field study of 13 homes to investigate the flexibility and affordability benefits of dual-fuel residential HVAC systems in various climate and energy market conditions.
  - NEEA is nearing completion of a field and energy modeling study to test the benefits of integrating lighting and HVAC controls which will expand the product and benefits of NEEA's current Luminaire Level Lighting Controls program. The crosscutting control system technology could provide a new avenue for energy savings in small-to-medium commercial buildings where control systems are not typical.

[2] Kannah Consulting. 2025. Commercial Heat Pump Tumble Dryers - Efficiency Testing, Operations Considerations, and Energy Savings.

- NEEA partnered with Bonneville Power Administration to install and monitor 34 room heat pump systems to collect both customer experience information and operational runtime and setting data.

- **Motor Systems**
  - NEEA investigated opportunities for increased pump efficiencies with American National Standards Institute (ANSI) pumps. NEEA is working to develop a Pump Efficiency Index for ANSI pumps which, while not exclusively used for clean water, generally pump fluids with very similar properties to clean water. NEEA should have findings from its research in 2026.

Test Procedures and Energy Efficiency Standards

In 2025, NEEA staff served as an important voice in representing utility, industry, and market-wide impacts from Department of Energy (DOE) proposed rollbacks to certain Federal efficiency standards. DOE has not yet issued final rules on these proposed rollbacks, which may be due, in part, to the breadth and depth of comments submitted by NEEA and other stakeholders representing a diverse group of manufacturers, industry trade associations, energy-efficiency advocacy groups, consumer advocates, and state and local government representatives. As DOE's standards program is not as active at the Federal level, NEEA has also been active in supporting state agencies in the Pacific Northwest to ensure that effective and efficient products continue to be available for consumers, as well as focusing on the development and improvement of test procedures for several products, including clothes dryers, televisions, and refrigerators. These new test procedures will ensure that the latest technology is adequately represented and yield metrics that can effectively differentiate better-performing equipment in the market. NEEA updated four codes and standards strategies for several NEEA Market Transformation programs and is in the process of completing and implementing strategies for five additional programs or special projects.

Market Implementation

HVAC Programs

NEEA continued work to identify and drive adoption of product features, capabilities, and ratings that will elevate the efficient performance of all residential two-stage and variable-speed heat pumps installed in the Northwest. The new Advanced Heat Pumps, which has a Total Regional Savings potential of 35 aMW for the Northwest, focuses on residential heat pumps with the following improvements: low-load efficiency, cold-climate capability, minimized supplemental heat, connected commissioning, and automatic load flexibility. Along with national partners, NEEA leads the Advanced Heat Pump Coalition to pursue technical advancements in residential heat

pumps and support utility heat pump programs. This coalition consists of more than 140 participating utilities and other efficiency organizations including 13 northwest utilities. In addition, NEEA and partners co-facilitated a symposium of manufacturers, distributors and utility representatives, collaborating to promote ways for the region to address reducing the use of supplemental electric resistance heat with heat pump systems, developing installer training and consumer messaging.

In 2025, the program focused on:

- Introducing four new heat pump product improvement recommendations to more than a dozen manufacturers to boost product adoption in the region.
- Completing a multi-year research effort with results suggesting low-load efficient variable speed heat pumps could deliver 2-7% energy savings with little-to-no increase in system cost, supporting improved cost effectiveness of heat pumps in the region.[3]
- Submitting a heat pump measure proposal to the RTF, focused on minimizing the use of supplemental electric resistance heat with residential heat pump installs.
- Developing a connected commissioning certification with a future aim of establishing a national registry that hosts a qualified product list (QPL) of connected commissioning capable products to help HVAC technicians and utilities identify these products.

Water Heating

NEEA worked with the Advanced Water Heater Initiative[4] to identify barriers and opportunities to help consumers adopt and benefit from the new federal standard mandating a shift for most electric storage water heaters to heat pump technology by 2029. NEEA also expanded the number of qualified regional installers and supported technological advancements through collaboration with manufacturers. NEEA is forecasting that heat pump water heaters can bring the Northwest more than 400 aMW of Total Regional Savings.

Consumer Products

Through its Retail Products Portfolio program (RPP), NEEA works with retailers and extra-regional program administrators to utilize midstream incentives that signal energy-efficient options in the supply chain and in turn provide full-category sales data. NEEA's involvement influences practices across the supply chain, encouraging commitment from manufacturers and retailers to build, purchase, stock, and promote high-efficiency products. Products include white goods, air cleaners,

[3] Harley Energy Consulting, LLC; Cadeo Group, LLC; Cener for Energy and Environment; DNV; OTS Energy, LLC; TRC Companies; UL Plano Texas; University of Nebraska Lab. 2025. Low-Load Efficient Heat Pump Investigation: 2020-2025 Summary Report.

[4] AWHI is a member-funded collaborative of building owners, utilities, federal agencies, state and local governments, manufacturers, engineers, installers, advocates, researchers, and building industry professionals from across the U.S.

televisions, and other home electronics. The data retailers provide allows NEEA to identify the most promising affordable energy efficiency opportunities and gain insights that improve energy test procedures, helping consumers distinguish between products. NEEA is forecasting that the ENERGY STAR products NEEA is working on could bring the Northwest more than 150 aMW of Total Regional Savings.

NEEA worked actively in three product categories in 2025, focusing on ensuring accurate test procedures and developing new strategic pathways to spur adoption.

- **Refrigerators:**
    - NEEA scoped a multi-phase lab testing effort to first assess various available test methods that value the performance of advanced adaptive compressors and then perform testing on a sample of refrigerators. The goal is a proof-of-concept where additional EE advocates or manufacturers can fund the lab testing to fully populate a new QPL for advanced refrigerators. NEEA is leading the development of the new QPL to help manufacturers and consumers recognize the energy savings from adaptive compressor technology and to influence updates to the DOE test procedures.
- **Laundry**:
    - In February 2025, the new leadership at the US Department of Energy announced indefinite postponements of the effective dates for federal standards on laundry appliances. Standards for both washers and dryers were adopted in 2024 through a process that was influenced by NEEA and other EE advocates and included a negotiated agreement with the Association of Home Appliance Manufacturers. NEEA is remaining in coalition with other advocates to be prepared to take advantage of the next opportunity to establish a firm effective date for these energy and money saving minimum efficiency levels.
    - NEEA gathered cost data to conduct analysis on the affordability of ENERGY STAR laundry appliances with the intent of identifying products and features that are common amongst ENERGY STAR products in the low-cost range. NEEA is currently exploring its approach to incorporate affordability strategies in our market transformation work.
- **Televisions:**
    - NEEA partnered with Best Buy and Costco to support in-store promotions of ENERGY STAR televisions in late 2025. The promotions encourage consumers to choose the most efficient options while prompting retailers to market and manufacturers to certify televisions through ENERGY STAR.

Lighting

NEEA engages commercial lighting manufacturers and their supply chain to increase adoption of Luminaire Level Lighting Controls (LLLC) in the Northwest. NEEA is forecasting that these controls could bring the Northwest more than 40 aMW of Total Regional Savings. Findings from a 2025 evaluation show that the demand for LLLC continues to experience year-over-year growth.[5] Product awareness is now nearly universal among installers, and increasing percentages of installers and designer/specifiers reported an ability to bid on projects that include these controls.

To maintain momentum, NEEA will continue training and strengthening sales staff's ability to articulate the value of LLLC across different building types and applications. NEEA's implementation contractor led three in-person sessions and one webinar in Idaho in 2025. The sessions drew 97 attendees, primarily contractors and end-use customers. The training focused on the simplicity of LLLC installation and how to take advantage of local incentives.

Motor-Driven Systems

NEEA is now reporting agricultural savings from smart pump installations in Idaho. NEEA's Extended Motor Products - Pumps program has been collaborating with manufacturer representatives to increase awareness of smart pump technologies and provide tools that demonstrate their value across sectors. The program has also partnered with the Hydraulic Institute to enhance awareness and usage of the Energy Rating label. NEEA is forecasting that these efficient pumps could bring the Northwest more than 25 aMW of Total Regional Savings.

New Construction

NEEA continues to advance innovation within the supply chain while helping shape voluntary specifications and codes to ensure consumers and building owners have access to products that perform reliably and save energy.

In 2025, NEEA actively participated in the development process for the 2027 International Energy Conservation Code (IECC). Staff served on the Commercial Consensus Committee, the Commercial HVAC subgroup, and the Residential Modeling & Whole Building subgroup. During the first round of development, NEEA submitted four code change proposals, three as lead proponent and one as co-proponent. One proposal was approved for inclusion in the first draft of the 2027 IECC.

NEEA also completed a code compliance evaluation for Idaho's 2018 IECC (commercial).[6] The study examined compliance pathways and assessed the level of compliance achieved. Findings from this

[5] Cadmus, 2025, Luminaire Level Lighting Controls: Market Progress Evaluation Report #3
[6] Opinion Dynamics. 2025. Idaho 2018 Commercial New Construction Code Compliance Evaluation.

analysis will guide NEEA's market intervention strategies for new construction, including future training and education programs.

Appendix

Allocation Methodology

Avista Idaho requests a savings report that best represents activity in its service territory where possible. NEEA uses the best available data to estimate these shares. Details about the allocation approaches and data sources by program are available on the *Service Territory Data Sources* worksheet of the attached spreadsheet.

Baseline and Technical Assumptions

This report follows NEEA's method of measuring electric energy savings from market transformation efforts. The baseline is an estimate of the market adoption for the region without intervention by NEEA, the Bonneville Power Administration, the Energy Trust of Oregon, utilities, and other NEEA partners. Prior to reporting the savings above the baseline, NEEA removes the savings counted through the local programs. This effort avoids double counting energy savings.

The technical assumptions come from third-party research including NEEA-contracted research and the RTF.

Additional information about savings assumptions, methodologies, and data sources will be available with the savings reports on our new online funder portal. The new system provides a secure platform to share information as well as creates an archive of prior shared documents.

Individuals who already have an account should have received an email containing the link to the portal. Upon accessing the portal, users should sign in using their credentials (email address and password). Those who do not have an account or who have any other questions should contact Chris Clark, NEEA Analyst, External Reporting and Special Projects, at CClark@neea.org.

Appendix G: NEEA 2025 Annual Savings Report – Natural Gas

Memorandum

March 25, 2026

TO: Nicole Hydzik, Director of Energy Efficiency, Avista Idaho; Amber Gifford, DSM Planning & Analytics Manager, Avista Idaho; Carlos Limon, DSM Engineer, Avista Idaho; Meghan Pinch, Manager of Energy Efficiency Programs, Avista Idaho; Kim Boynton, Manager of Planning and Analytics, Avista Idaho; Reuben J Arts, Distribution Operations Manager, Avista Idaho

CC: Becky Walker, Chief Program Officer; Stephanie Rider, Director, Portfolio Management, Reporting & Data Analytics; Nathan Martinez, Director, Market Analytics, Research and Evaluation; Virginia Mersereau, Vice President of Corporate Strategy and Communications

FROM: Christina Steinhoff, Principal Analysis Manager

SUBJECT: Final 2025 Annual Natural Gas Savings Report

NEEA is an alliance of utilities and energy efficiency organizations with a purpose to pool resources and share risks to transform markets for energy efficiency to the benefit of all consumers in the Northwest. NEEA works with all parts of the market to deliver energy efficiency to Northwest consumers by:

- Gathering and analyzing data to inform market transformation efforts, regional power planning, and utility programs.
- Leveraging its relationships with mid and upstream market actors like manufacturers and retailers to influence their business practices by making a case for efficiency.
- Improving how products are tested and perform in real life applications.

Utilities, energy efficiency administrators, and the Regional Technical Forum (RTF) all benefit from NEEA's work through knowledge sharing, the development of new energy conservation measures, and the resulting market changes leading to energy savings.

These long-term efforts transform markets by making more efficient products and options available to consumers and businesses across the Northwest. NEEA's end goal is to make energy efficiency a self-sustaining standard of practice in markets.

As such, Avista Utilities Idaho has requested an annual savings report. This memo provides:

- Natural gas energy savings for 2025
- An update to the 2024 savings estimates based on new data.
- Highlights of work in 2025 to help support the region meet its energy conservation goals.

Details about the allocation, baseline, and technical assumptions are in the attached Excel spreadsheet.

Please contact Christina Steinhoff at csteinhoff@neea.org with any questions about this report.

2025 Savings Estimate

NEEA estimates Avista Utilities Idaho's 2025 annual natural gas energy savings associated with its initiatives is 302,208 Annual Therms[1] (Table 1). These savings are above the NEEA baseline[2] and exclude an estimate of savings that Avista Utilities and other regional utilities claim through locally run programs. NEEA allocates energy savings based on an estimate of service territory shares (Appendix). Many gas-funded programs are still in early development. NEEA expects the savings from these programs to increase over the next few years.

The programs in the gas portfolio are very early in the market and still developing out as opportunities within each funder's territory. NEEA reports energy savings at the service territory level, and there may be years when a program in early development will not have any trackable adoption to report. NEEA sees market progress occurring across the region and forecasts benefits for each funder over the business cycle. NEEA is currently seeking local demonstration projects to develop local level learnings and relationships to support early adoption in Avista Utilities' territory. Contact Alisyn Maggiora, Sr. Stakeholder Relations Manager, at amaggiora@neea.org for more information.

Table 1: 2025 Annual Report Net Market Effects Savings* Estimates (Annual Therms)

Total	302,208
Gas-funded Programs	300,968
Efficient Rooftop Units (ERTU)	0
Product Standards (Commercial)	0
Product Standards (Residential)	Expected in 2029
New Construction (Commercial Codes)	0
New Construction (Residential Codes)	300,968
Gas-funded Programs in Development	NA
Advanced Commercial Water Heating	Expected in 2026
High Efficiency Dedicated Outdoor Air System (HE DOAS)	Expected in 2027/2028
Indirect Gas Savings	1,239
Manufactured Homes (Envelope Measures)	1,059
Extended Motor Products-Pumps (Commercial, Water Heating)	0
Extended Motor Products-Pumps (Residential, Water Heating)	180

*Net Market Effects = Total Regional Savings - Local Program Savings - Baseline Savings

[1] The term Annual Therms refers to the fact that NEEA reports first-year savings only in order to represent a sustained reduction in load.

[2] NEEA estimates Baseline as the savings that would have occurred without NEEA, utility, and the Avista Idaho's market intervention.

New to this Report

This report now includes an Indirect Gas Savings section for savings achieved from alliance investments outside of the gas portfolio. NEEA's relationships with market actors, influence in national collaboratives and voluntary standards, and market-facing materials can benefit energy use across all fuel sources. As NEEA expands its understanding of overlap between its electric and gas portfolios, staff have identified situations where market transformation efforts funded through the electric portfolio have produced measurable gas savings. NEEA categorizes these savings as indirect, reportable savings because these gas benefits are not the primary goal of the program strategy. The areas where NEEA has currently identified measurable indirect gas savings include:

- Manufactured Homes: NEEA developed enhanced, above-code specifications that improve building envelopes and deliver both electric and gas savings. NEEA tracks these savings and continues to support federal efforts to incorporate the specifications into U.S. Department of Energy standards.
- Extended Motor Products (XMP)-Pumps: NEEA influenced the development of an energy rating label to increase awareness and understanding of smart pump technology. High-efficiency pumps can reduce both gas and electric water heating energy use. NEEA tracks these savings through its XMP-Pumps program.

More information about these programs is available upon request.

2024 Annual Report Update

The 2024 savings increased by less than 1 percent to 287,059 MM Therms. NEEA updated the new construction estimates for residential buildings based on revisions from the Department of Housing and Urban Development. Table 2 shows the changes.

Table 2: Update to the 2024 Annual Savings Estimates (Annual Therms)

Sector	2024 Annual Report	Update
Total	285,431	287,059

2025 Highlights

NEEA collaborates with stakeholders across the Northwest and nationally to advance the adoption of energy efficient technologies. Work includes:

- Data collection, research, and analysis
- Product development and testing
- Market implementation

These efforts help bring higher efficiency products and services to market, ultimately benefiting consumers and businesses, and generating energy efficiency savings. Below are key highlights for 2025.

Data Collection, Research, and Analysis

Building Stock Assessments

NEEA has five regional studies that hit milestones in 2025. The data collection phase of the 2025 Commercial Building Stock Assessment finished, and the study began developing data and reporting deliverables that will be posted on neea.org in the first half of 2026. The Home Energy Metering Study and Commercial Energy Metering Study both finished metering and deinstalled most meters. The study will now focus on analyzing the data and sharing key insights. The Motor-System Stock Assessment selected and onboarded two firms and began study-design and planning work. Lastly, NEEA formed the 2027 Residential Building Stock Assessment working group and with their input developed a request for proposals document that will be released at the beginning of 2026.

Market Data and Research

NEEA's Market Research and Evaluation team managed nearly 40 third-party research and evaluation studies to support alliance Market Transformation programs, building codes, and new product standards work, as well as NEEA's special project work in end use load flexibility and whole building/building performance standards. Some gas-related research included:

- Identifying purchase motivators for people with high-efficiency gas equipment to see if and where there is a market for a commercialized gas heat pump water heater.[3]
- Exploring the opportunities and barriers for adding gas to NEEA's High-Performance HVAC program, characterizing the market landscape, and assessing specifiers' perceptions of system configurations in hypothetical scenarios aligned with the program's targeted approach.[4]
- Increasing the region's understanding of gas and electric water heating systems across a selection of commercial buildings in the Northwest.[5]
- Completing the first Market Progress Evaluation Report for the Efficient Rooftop Units (ERTU) program.[6] The study found that six manufacturers currently offer ERTU products, including two of the five leading ERTU manufacturers. While adoption is still emerging, integrated energy recovery ventilator models appear to be gaining more traction than bolt-on options.

In addition, the team managed work on projects that measured compliance with updated building energy codes in Idaho, and Oregon. These projects, along with the codes' market progress evaluation and a review of NEEA's approach for developing counterfactual baselines for state energy codes, provide the market with valuable information on the market's response to code changes, informs strategy, and supports evaluation of NEEA and its partners' influence on building energy codes.

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[3] High Efficiency Gas Water Heater Research - Northwest Energy Efficiency Alliance (NEEA)
[4] Commercial HVAC Specifier Market Research: Gas High Efficiency DOAS - Northwest Energy Efficiency Alliance (NEEA)
[5] Market Research on Existing Water Heaters in Select Commercial Buildings, Final Report - Northwest Energy Efficiency Alliance (NEEA)
[6] Efficient Rooftop Units Market Progress Evaluation Report #1 - Northwest Energy Efficiency Alliance (NEEA)

Data Processing

NEEA continued to refine its commercial HVAC installation tracking process as well as expand market coverage. NEEA collects sales data, relying on trusted relationships with regional HVAC suppliers. NEEA augments the data by matching equipment model numbers to equipment efficiency attributes from the Air-Conditioning, Heating, and Refrigeration Institute certification database. NEEA's goal is to continue minimizing manual data cleaning and to expand its coverage with distributors as well as add sales through manufacturer representatives.

Product Development and Testing

Emerging Technology

NEEA's emerging technology team routinely scans for, assesses, and reports on the potential for newly identified efficient products, services, and practices. Once opportunities are identified, NEEA works with manufacturers to encourage creating products that meet regional needs and are confirmed to save energy. As a regional organization, NEEA focuses on opportunities that have broad benefits across the four Northwest states, including places that have unique barriers and opportunities for efficiency, such as rural markets and colder climates. By working together and aggregating investment, NEEA's funders and stakeholders share both the costs and the risks associated with bringing new energy efficient technology to markets.

In 2025, the emerging technology program conducted research to scan new products for NEEA's gas energy efficiency portfolio. The work included:

- A field study of 13 homes to investigate the flexibility and affordability benefits of dual-fuel residential HVAC systems in various climate and energy market conditions.
- A field and energy modeling study to test the benefits of integrating lighting and HVAC controls to expand the product and benefits of NEEA's current Luminaire Level Lighting Controls program. The crosscutting control system technology could provide a new avenue for energy savings in small-to-medium commercial buildings where control systems are not typical.
- A test of residential-sized gas fired absorption heat pump design for broad residential and commercial applications. Field data showed the hybrid system could achieve net efficiencies of up to 136%, with gas savings of 54% in hot water-only mode and up to 55% in combined heating modes at the multifamily site. At the residential sites, the system achieved net efficiencies between 110% and 130% in combined heating modes.[7]

Test Procedures and Energy Efficiency Standards

In 2025, NEEA staff served as an important voice in representing utility, industry, and market-wide impacts from Department of Energy (DOE) proposed rollbacks to certain Federal efficiency standards. The DOE has not yet issued final rules on these proposed rollbacks, which may be due, in part, to the breadth and depth of comments submitted by NEEA and other stakeholders representing a diverse group of manufacturers,

[7] Gas-Fired Absorption Heat Pump: Hybrid System Approach Field Study - Northwest Energy Efficiency Alliance (NEEA)

industry trade associations, energy-efficiency advocacy groups, consumer advocates, and state and local government representatives. Because the DOE's standards program is not as active at the Federal level, NEEA has also been active in supporting state agencies in the Pacific Northwest to ensure that effective and efficient products continue to be available for consumers, as well as focusing on the development and improvement of test procedures for several products. These new test procedures will ensure that the latest technology is adequately represented and yield metrics that can effectively differentiate better-performing equipment in the market.

Market Implementation

Efficient Rooftop Units

In 2025, the program developed four new marketing resources:

- A case study for the KBOO Community Radio field demonstration,
- A re-design of the BetterBricks Efficient Rooftop Units page,
- A brochure for distributors that explains the benefits of the ERTU specification elements,
- A one-page flyer on ERTU program details.

The team also started development on a website campaign for 2026 that will help building owners or facility managers identify how ERTUs would be a good option for HVAC equipment replacement projects.

The program has made progress with manufacturer representatives identifying projects and applications suited for qualified efficient RTUs (e.g. schools, sports facilities, and other building types with high-ventilation needs). The program is looking to incentivize case study development and support for manufacturer representatives promoting qualified products.

The program also kicked off the Energy Recovery Ventilators /Heat Recovery Ventilators cleaning market study with MarketWise. Objectives are to gather perspectives on operational considerations for installing, commissioning, cleaning, and maintaining ERVs/HRVs, and investigate what ERV/HRV cleaning and maintenance looks like in real-world applications. A final report will be available in 2026.

Finally, NEEA completed a modeling study on commercial HVAC efficiency measures for various types of commercial rooftop units. The goal of broadening the modeling efforts to cover a greater portion of the United States is to enhance the region's understanding of how measure and tier impacts vary by climate region, which could eventually inform the development of a national program applicable to the RTU market and representative federal efficiency metrics for this product.[8]

High Efficiency Dedicated Outside Air Systems

NEEA is exploring opportunities to expand its Commercial High-Performance HVAC electric program to include gas products. The team is assessing the projected market potential, savings estimates, cost effectiveness, and barriers/opportunities to present to NEEA's gas-funding stakeholders in 2026.

[8] National Efficient Rooftop Unit Energy Modeling - Northwest Energy Efficiency Alliance (NEEA)

Water Heating

The Advanced Commercial Water Heating program finished a market characterization report that should be published later this year. NEEA also continued engagement with manufacturers and tested the products through field demonstrations including a commercial gas heat pump system. NEEA is working with the North American Gas Heat Pump Collaborative on a new feasibility study to identify potential savings and market opportunities for a gas system for use in the commercial multifamily market. NEEA is also co-funding a Gas Technology Institute project to develop a new tool for designing and optimizing commercial water heating gas heat pump systems.

The research and analysis will help the program move into market development in 2026/2027.

New Construction

NEEA continues to advance innovation within the supply chain while helping shape voluntary specifications and codes to ensure consumers and building owners have access to products that perform reliably and save energy.

In 2025, NEEA actively participated in the development process for the 2027 International Energy Conservation Code (IECC). Staff served on the Commercial Consensus Committee, the Commercial HVAC subgroup, and the Residential Modeling & Whole Building subgroup. During the first round of development, NEEA submitted four code change proposals, three as lead proponent and one as co-proponent. One proposal was approved for inclusion in the first draft of the 2027 IECC.

NEEA also completed a code compliance evaluation for Idaho's 2018 IECC (commercial).[9] The study examined compliance pathways and assessed the level of compliance achieved. Findings from this analysis will guide NEEA's market intervention strategies for new construction, including future training and education programs.

[9] Opinion Dynamics. 2025. Idaho 2018 Commercial New Construction Code Compliance Evaluation.

Appendix: Methodology

Allocation

NEEA allocates code savings for gas measures using a state/service territory approach (Table 3). The approach uses EIA residential consumer sales for Residential Codes and nonresidential volume for Commercial Codes.

Table 3: State Code Savings Allocation Share

Sector	WA	OR	ID
Residential	0.00%	0.00%	18.33%
Commercial	0.00%	0.00%	15.38%

NEEA used service territory allocations for the Efficient Rooftop Units savings because the program is new to the market and is tracking installations by service territory.

Baseline, Local Programs and Technical Assumptions

This report follows NEEA's method of measuring gas energy savings from market transformation efforts. The baseline is an estimate of market adoption without intervention by NEEA, Avista Idaho and utilities. Prior to reporting the savings above the baseline, NEEA removes the savings counted through the local programs. This effort helps funders avoid double counting energy savings.

The technical assumptions come from third-party research including NEEA contracted research and the RTF. Details are available within the spreadsheet accompanying this memo.

Additional information about savings assumptions, methodologies, and data sources will be available with the savings reports on our new online funder portal. The new system provides a secure platform to share information as well as creates an archive of prior shared documents.

Individuals who already have an account should have received an email containing the link to the portal. Upon accessing the portal, users should sign in using their credentials (email address and password). Those who do not have an account or who have any other questions should contact Chris Clark, NEEA Analyst, External Reporting and Special Projects, at CClark@neea.org.

Appendix H: NEEA 2025 Annual Savings Report Addendum

ANNUAL SAVINGS REPORT ADDENDUM
2025 // Avista Utilities

Introduction

The Northwest Energy Efficiency Alliance (NEEA) is an alliance of utilities and energy efficiency organizations working on behalf of over 14.5 million energy consumers across the four Northwest states. NEEA's mission is to catalyze the most efficient use of energy for a thriving Northwest.

NEEA is funded by more than 140 electric and natural gas utilities and program administrators across the region, including Avista Utilities, Idaho Power, the Bonneville Power Administration and Energy Trust of Oregon. Its stakeholders include Northwest utilities, public interest groups, state energy offices and government entities. Since 1996, NEEA has taken a market-driven approach to energy efficiency that is grounded in data, collaboration and rigorous evaluation. NEEA works to transform markets by filling information gaps and identifying and removing barriers so the market can align around evolving electric and natural gas energy efficiency needs. The result is long-term, cost-effective energy savings for the region.

In 2023, through a jointly issued Request for Proposals with Idaho Power, Avista Utilities commissioned ADM Associates, Inc. to conduct an evaluation of the methods that NEEA uses to evaluate its influence in Idaho. ADM made several recommendations for additional reporting from NEEA beginning in 2025. This addendum responds specifically to the following recommendations:

- *Recommendation #2: Request that annual savings reports include estimates of administrative expenses, incentive expenses and non-incentive expenses by service territory.*
- *Recommendation #4: Track progress for each code change relative to administrative dollars spent towards state-level codes and associated energy savings accrued by each state-level code.*

This addendum to NEEA's annual savings report addresses these recommendations by providing Avista Utilities with additional expense details.

Please note, the annual budget provided in this addendum supports both current and future energy savings from NEEA's activities. As annual expenses are not directly tied to same-year annual savings, NEEA does not recommend using this report for annual utility cost-effectiveness evaluations. Doing so would not capture the full scope of investment and return, nor would it support proper decision making.

2025 BUDGET ALLOCATION BY EXPENSE CATEGORY

The table below details the proportion of NEEA's total regional 2025 expenses allocated to Avista Utilities broken out by administrative expenses, incentives and other expenses. Estimates are based on NEEA's standard funding formula, which was adopted by NEEA's Board of Directors to determine funding shares for each direct funder. Please note the figures are rounded to the nearest dollar.

NEEA Funder		Administrative Expenses[1]	Mid-Stream/ Upstream Incentives[2]	Non-Incentive Expenses	Total 2025 Expenses allocated to Avista
Avista Utilities *(Idaho) (2.18% of NEEA's Electric & 3.82% of NEEA's Natural Gas funding share)*	**Electric**	$125,240	$51,605	$615,896	**$792,741**
	Natural Gas	$31,980	$245	$170,200	**$202,425**

2025 EXPENSES RELATIVE TO CODE CHANGE PROGRESS

NEEA supports energy codes across the Northwest through a broad range of efforts including training, collaboration and technical engagement. This includes contributing to the development of the International Energy Conservation Code (IECC) and supporting state-level code updates in Idaho, Montana, Oregon and Washington. NEEA also provides training and resources to help implement new codes effectively, provides data to inform future code changes, and works with utilities to align new construction programs with evolving standards.

2025 ACTIVITIES (IDAHO)

Idaho began a formal rulemaking process in 2025 to update state energy codes, anchored to the 2024 IECC reference code. NEEA staff facilitated a code collaborative that helped to inform, link and build consensus across a broad range of members participating in the public process, including public hearings with the Building Code Board. NEEA staff virtually attended state meetings, tracked amendment outcomes, and coordinated stakeholder feedback throughout the 2025 process. Trainings, technical materials and new construction support were provided throughout the year and through BetterBuiltNW. In addition, NEEA staff co-developed and submitted proposals for the 2027 IECC national model code and served on multiple national consensus committees formed to guide the final IECC code.

The table below details Avista's portion of NEEA's Idaho-specific activities and expenses in 2025 supporting Idaho's residential and commercial energy code. The expenses are based on activities in Idaho (e.g., training and research) and expenses for supporting materials (e.g., the BetterBuiltNW website, the AXIS database for new construction, and 2027 IECC development). Please note the figures are rounded to the nearest dollar.

[1] Administrative expenses reflect Funders' proportional share of costs for non-program expenses related to company management and overall operations using the same methodology as reflected in NEEA's Form 990 annual tax return.
[2] Financial incentives paid by NEEA to manufacturers, distributors and other midstream and upstream supply chain participants.

2025 Labor and Project Expenses[3] by Activity – Avista's Portion		
Codes Collaborative and Training	Dedicated contract for activities in Idaho	**$53,997**
Residential and Commercial Code Evaluations	Dedicated contract for research in Idaho	**$31,790**
New Construction Tools and Support	Shared regional resource	**$7,797**
Codes and Technologies Training	Regional resource customized for Idaho	**$7,193**
Codes Energy Savings Analysis	Shared regional resource	**$3,020**
Educational Content for all New Construction	BetterBuiltNW and other resources	**$1,036**
Total		**$104,833**

Questions? Contact Us

Mark Rehley
Director, Codes, Standards and Emerging Technology
mrehley@neea.org

Kyle Burchard
Vice President of Business Administration
kburchard@neea.org

3 Code expenses include NEEA labor to support code work, code research and evaluation, codes training and education. Expenses from regional activities were divided using funder allocations across states, and the total state value was distributed between utilities using funder shares.

Appendix I:
2025 Energy Efficiency Advisory Group Meetings & Agenda Topics

Meeting 1: March 4, 2025

Agenda

1) 2022—2023 Savings Achievements
    - 2022—2023 *Biennial Conservation Report*: UTC Dockets UE-210826 and UG-210827
    - 2022—2023 Idaho Prudence Determination
2) 2025 *Annual Conservation Report* Overview
3) Cost Effectiveness of Natural Gas Programs in Idaho
4) *Annual Conservation Report* Process Improvements
5) Program Updates
    - Small Business Lighting
    - Home Energy Reports (HERs)
    - Insulation Direct Install
6) Looking Ahead in 2025: *Biennial Conservation Plan* Process; CEIP; Public Participation

Meeting 2: May 14, 2025

Agenda

1) 2024 Reported Achievements
2) CPA Contract Update
3) Preparing for the Biennial Target-setting Process
4) Discussion: Project Incremental Costs
5) Home Energy Reports Update – Design Elements
6) Deferred Maintenance Update & Recap
7) Weatherization Training Plans
8) Building Operator Certification Training Update
9) Additional Program Updates
    - Insulation DI Program
    - Compressed Air
    - Cohort for Multifamily SEM
    - Midstream RFP
10) Discussion: DEA as it pertains to Energy Efficiency
11) Upcoming Dates/Deadlines

Meeting 3: June 25, 2025

Agenda

1) 2024 Preliminary Idaho Achievements
2) 2026—2027 Biennial Target Setting Process
3) Idaho Natural Gas Program Analysis – Cost Effectiveness
4) Program Updates:

    - Home Insulation Program
    - Multifamily Energy Excellence Program
5) Discussion: Program Opportunities for Next 2 Years
6) Upcoming Meetings and Filing Dates

Meeting 4: August 25, 2025

Agenda

1) Idaho-Specific Topics (2024 achievements)
2) 2026—2027 *Biennial Conservation Plan*
3) CETA Topics
    - 2025 CEIP – Named Communities & CBI
    - Procedural Equity
    - CETA Program Continuity
4) Upcoming Meetings and Filings
5) Public Participation Dates

Meeting 5: October 21, 2025

Agenda

1) Home Energy Reports Program
    - Joint Presentation from Bidgely & ADM
2) EE Program Updates for 2026
3) New Engineering Pilot Programs for 2026
4) Year-to-Date Savings Updates for Washington & Idaho
5) EE Customer Demographics
6) WA *Biennial Conservation Plan* draft updates
7) Upcoming Meetings & Filings
8) Public Participation Dates