



Idaho 2015 DSM Annual Report & Cost-Effectiveness Analysis

June 2, 2016

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1 Executive Summary

The 2015 Demand-Side Management (DSM) Annual Report summarizes Avista Utility's (Avista) annual energy efficiency achievements for its Idaho electric customers. These programs are intended to deliver a cost-effective, "least-cost" resource with the funding provided through Avista's Schedules 91 and 191, also known as the "Tariff Rider" which is a non-bypassable system benefit charge applied to all electric retail sales.

In 2015, Avista acquired 14,789,283 kWh (verified gross savings) in Idaho, or 94% percent of its Integrated Resource Plan (IRP) goal of 15,666,200 kWh (Table ES-1). A summary of acquired savings in 2015 by sector is provided in Table ES-2. Primary drivers for electric savings included the nonresidential site-specific and residential lighting efforts. Behavioral savings and nonresidential prescriptive lighting also contributed a significant amount to the overall savings.

Table ES-1: 2015 Idaho Electric Energy Savings vs IRP Goal

2015	kWh
Local Evaluated Savings	14,789,283
2015 IRP Goal (2013 IRP)	15,666,200
Percent of Goal	94%
ID Electric Realization Rate	97%

Table ES-2: 2015 Idaho Electric Energy Savings (Verified Gross)

Segment	kWh
Residential	8,995,214
Low Income	433,246
Nonresidential	5,360,823
Total	14,789,283

In 2014, Avista acquired 16,291,755 kWh (verified gross savings) or 106% of the Integrated Resource Plan goal (Table ES-3). Table ES-4 outlines Avista's verified savings achievements compared to the IRP goal for 2014-2015 combined.

Table ES-3: 2014 Idaho Electric Energy Savings vs IRP Goal

2014	kWh
Local Evaluated Savings	16,291,755
2014 IRP Goal (2013 IRP)	15,330,000
Percent of Goal	106%
ID Electric Realization Rate	97%



Table ES-4: 2014-2015 Idaho Electric Energy Savings vs IRP Goal

2014-2015	kWh
Local Evaluated Savings	31,081,038
2014-2015 IRP Goal (2013 IRP)	30,996,200
Percent of Goal	100%
Avista Idaho NEEA	4,029,600
ID Electric Realization Rate	97%

The above mentioned acquisition has been delivered through local energy efficiency programs managed by the utility or third-party contractors. Avista also funds a regional market transformation effort through the Northwest Energy Efficiency Alliance (NEEA), however, reported electric energy savings, cost- effectiveness and other related information is specific to local programs unless otherwise noted. The savings indicated above are gross, verified savings based on all program participants.

Avista judges the effectiveness of the energy efficiency portfolio based upon a number of metrics. Two of the most commonly applied metrics are the TRC test, a benefit-to-cost test encompassing the entire utility ratepayer population, and the PAC test, a benefit-to-cost test from the perspective of achieving a minimization of the utility cost of delivering energy efficiency services.

Benefit-to-cost ratios in excess of 1.00 indicate that the benefits exceed the costs. In 2015, the gross TRC benefit-to-cost ratio was 1.29 and the PAC benefit-to-cost ratio was 2.39.

Nexant, Inc., in partnership with Research Into Action, (the evaluation team) was retained as the Company's external evaluator to independently measure and verify the portfolio energy savings for the 2014-2015 biennium period. The energy efficiency savings and associated cost-effectiveness results presented in this 2015 Annual Report are based on the evaluation findings and are presented as gross, verified savings.

Though the nature of this report is to look backwards on the performance of the previous year, successes and lessons from this process are applied during the forward-looking business planning process to inform and improve program design, including program modification and termination where necessary. Avista remains committed to continuing to deliver responsible and cost-effective energy efficiency programs to our customers.



2 Cost-Effectiveness

The 2015 Demand-Side Management (DSM) Annual Report summarizes the Company’s annual energy efficiency achievements of its DSM programs.

Cost-effectiveness was reviewed using four of the five California Standard Practice Tests including the Total Resource Cost (TRC), Program Administrator Cost (PAC), Participant, and Rate Impact Measure (RIM) tests. For this annual report, cost-effectiveness of DSM programs is based on unverified gross savings and methods consistent with those laid out in the California Standard Practice Manual for Economic Analysis of Demand-Side Programs and Projects as modified by the Council. Shown below in Table 2-2 through Table 2-5 are results for these four California Standard Practice Tests - Total Resource Cost, Program Administrator Cost, Participant, and Rate Impact Measure for electric and natural gas. Table 2-1 summarizes the allocation of cost-effectiveness components as a cost or benefit to each cost-effectiveness test.

Table 2-1: Cost-Effectiveness Component Inputs

Component	Program Administrator Cost Test (PACT)	Total Resource Cost (TRC)	Participant Cost Test (PCT)	Rate Impact Measure (RIM)
Utility Energy & Capacity Avoided Costs	Benefit	Benefit		Benefit
Non-Utility Energy & Capacity Energy Costs		Benefit	Benefit	
Non-Energy Benefit Impacts		Benefit	Benefit	
Incremental Equipment and Installation Costs		Cost	Cost	
Program Non-incentive (admin) Costs	Cost	Cost		Cost
Incentive Payments	Cost		Benefit	Cost

The cost-effectiveness calculations only include non-energy benefits where the values are reasonably defensible and quantifiable for a limited number of measures, including water savings, equipment replacement and operation and maintenance benefits. The calculations also include health and human safety non-energy benefits (dollar for dollar) for the low-income programs. Non energy benefits not included, because they are not easily quantifiable, include benefits for arrearage, health/safety/comfort, system reliability, and site specific air emissions to name a few. The evaluation team will include survey and on-site questions of participating customers to determine specific and demonstrable non-energy benefits as found and as applicable.

Cost effectiveness results within this report are based on verified savings. Energy savings reported by Avista’s implementation team (both external and internal to Avista) were reviewed



by the Company's external evaluator, adjusted for any major discrepancies in reporting and evaluated as part of the 2014-2015 evaluation activities. The savings estimates represent gross energy acquisition except as noted in Section 10 of this report.

In summary, electric gross TRC is 1.29 and the electric PAC test benefit-cost ratio is 2.39. Table 2-2 through Table 2-5 illustrates electric cost-effectiveness. Regular income includes all programs offered in the residential and Nonresidential sectors (not including NEEA) and low-income includes all programs offered in the low-income sector.



2.1 Electric Cost Effectiveness Results

Table 2-2: 2015 ID Electric Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$11,554,913	\$485,674	\$12,040,587
Natural Gas Avoided Costs	-\$1,498,596	-\$18,227	-\$1,516,823
Non-Energy Benefits	\$97,043	\$306,334	\$403,376
TRC Benefits	\$10,153,360	\$773,781	\$10,927,141
Non-Incentive Utility Costs	\$1,512,612	\$159,542	\$1,672,154
Customer Costs	\$6,162,777	\$616,385	\$6,779,161
TRC Costs	\$7,675,388	\$775,927	\$8,451,315
TRC Ratio	1.32	1.00	1.29
Residual* TRC Benefits	\$2,477,972	-\$2,146	\$2,475,826

*The “Residual TRC” is used to denote the difference between TRC benefits and costs. The term “Residual” is used in lieu of the term “Net” as not to be confused with TRC benefits and costs where Net to Gross adjustments have been applied.

**Includes costs funded to the CAP agencies.

Table 2-3: 2015 ID Electric Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$11,554,913	\$485,674	\$12,040,587
Natural Gas Avoided Costs	-\$1,498,596	-\$18,227	-\$1,516,823
PAC Benefits	\$10,056,317	\$467,447	\$10,523,764
Non-Incentive Utility Costs	\$1,512,612	\$159,542	\$1,672,154
Incentive Costs	\$2,112,543	\$616,385	\$2,728,928
PAC Costs	\$3,625,155	\$775,927	\$4,401,082
PAC Ratio	2.77	0.60	2.39
Net PAC Benefits	\$6,431,162	-\$308,480	\$6,122,683



Table 2-4: 2015 ID Electric Participant Cost (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$16,030,397	\$667,521	\$16,697,918
Gas Bill Reduction	-\$29,905	-\$861	-\$30,767
Non-Energy Benefits	\$97,043	\$306,334	\$403,376
Participant Benefits	\$16,097,534	\$972,994	\$17,070,528
Customer Costs	\$6,162,777	\$616,385	\$6,779,161
Incentive Received	-\$2,112,543	-\$616,385	-\$2,728,928
Participant Costs	\$4,050,233	\$0	\$4,050,233
Participant Ratio	3.97	N/A	4.21
Net Participant Benefits	\$12,047,301	\$972,994	\$13,020,295

Table 2-5: 2015 ID Electric Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	\$11,554,913	\$485,674	\$12,040,587
Non-Participant Benefits	\$11,554,913	\$485,674	\$12,040,587
Electric Revenue Loss	\$16,030,397	\$667,521	\$16,697,918
Non-Incentive Utility Costs	\$1,512,612	\$159,542	\$1,672,154
Customer Incentives	\$2,112,543	\$616,385	\$2,728,928
Non-Participant Costs	\$19,655,552	\$1,443,448	\$21,099,000
RIM Ratio	0.59	0.34	0.57
Net RIM Benefits	-\$8,100,638	-\$957,774	-\$9,058,413



3 Programs

3.1 Residential

The Company's residential portfolio is composed of several approaches to engage and encourage customers to consider energy efficiency improvements within their home. Prescriptive rebate programs are the main component of the portfolio, but are augmented by a variety of other interventions. These include: upstream buy-down of low-cost lighting and water saving measures, select distribution of low-cost lighting and weatherization materials, appliance recycling program, direct-install programs and a multi-faceted, multichannel outreach and customer engagement effort.

Over \$2.7 million in rebates were provided directly to Idaho residential customers to offset the cost of implementing these energy efficiency measures. All programs within the residential portfolio contributed over 8,995 MWh to the 2015 annual energy savings.

3.1.1 Program Changes

Program changes were made for the 2014-2015 Biennium, including the introduction of new programs, the discontinuation of programs and changes to eligibility or incentive levels of existing programs. Avista communicates the majority of program changes once the Business Plan is finalized and typically makes the changes effective at the beginning of the year. Program changes are also made throughout the year as necessary, but mid-year changes are less typical.

For residential programs, rebate amounts were updated to reflect business planning analysis and to include inputs such as new unit energy savings (UES) and cost values. For changes that were effective January 1, 2015, Avista continued to accept rebate applications and honored incentive amounts through March 31, 2015 for 2014 measures (the 90 days allowed for a smooth transition when rebate programs change, allowing enough time for customers in the pipeline to complete their projects, yet closed out changes in a timely but balanced approach).

The following outlines additions, adjustments and discontinuations of residential programs and incentive levels beginning in 2015:

3.1.1.1 Residential Program Discontinuations

The following measures and/or programs were discontinued from the residential portfolio:



- The Appliance Recycling Program was discontinued in June 2015.

3.1.1.2 Residential Program Adjustments

The following adjustments in program requirements and/or incentives levels were made to the residential programs beginning January 2015:

- Electric to Natural Gas Direct Vent Wall Heater was added to the Fuel Efficiency Program at an incentive of \$1,300

The remaining sub-sections outline each residential program offered in 2015 and the verified participation, incentives, energy savings, among other program achievements.

3.1.2 Residential Appliance Recycling

Avista partnered with JACO, one of the nation's leading appliance recyclers, to provide third-party administration of the refrigerator/freezer appliance recycling program until June 30, 2015. After this date the program ended because it became non-cost effective due to revised RTF values that came into effect July 2015. Customers received \$30 per appliance for participating which equated to \$3,390 in incentives. This appliance recycling program resulted in over 71 MWh in annual first-year savings in 2015 (see Table 3-1).

3.1.3 HVAC Program

Electric customers with electric home heat are eligible for a rebate for the installation of a variable speed motor on their forced air heating equipment (\$100 rebate), or a conversion of electric straight resistance space heat to an air source heat pump (\$900 rebate). Customers are also eligible for the installation of a smart thermostat. This program achieved over 262 MWh in first-year savings in 2015 and customers received a total of \$85,188 in incentives (see Table 3-2).

3.1.4 Water Heat Program

The Water Heat Program offers a \$20 incentive for a high efficiency electric water heater (0.94 Energy Factor), \$7 buydown for Simple Steps, Smart Savings showerheads and \$35 buydown for Simple Steps, Smart Savings clothes washers (reflected in point of purchase price). The Water Heat Program achieved 216 MWh in first-year savings in 2015 (see Table 3-3). \$28,833 was paid in incentives for this program.

3.1.5 ENERGY STAR HOMES

Avista customers with a certified ENERGY STAR Home or ENERGY STAR / ECORated Manufactured Home are eligible for a \$1,000 or \$800 rebate, respectively. Eligible homes must be all electric to qualify for these rebate levels. Alternatively, customers who subscribe to Avista

electric service for lighting and appliances and natural gas service for space and water heating are eligible for a program rebate of \$650 regardless of construction type. Avista achieved 132 MWh savings in 2015 (see Table 3-4). A total of \$14,043 was paid out in incentives for this program.

3.1.6 Fuel Efficiency

The Fuel Efficiency Program offers incentives for converting existing straight resistance electric space heat to a natural gas furnace (\$2,300 rebate); and/or converting their existing electric water heater to a natural gas water heater (\$600 rebate). The program also offers an incentive for the conversion of electric to natural wall heaters (\$1,300 rebate). This program achieved 2,786 MWh in first-year savings in 2015 (see Table 3-5), with customers receiving \$939,873 in paid incentives.

3.1.7 Residential Lighting

Avista continues to participate in the regional manufacturer buy-down of CFL lamps, specialty bulbs, LED bulbs, and showerheads through Northwest Energy Efficiency Alliance (NEEA) and its contactor and some self-directed giveaways. The bulbs resulted in 5,151 MWh in annual first-year savings during 2015 (see Table 3-6). The Simple Steps showerhead savings are tallied under Avista's Water Heat program. The Company contributed over \$168,521 in incentives toward this buydown effort.

3.1.8 Shell

The primary measures included in the Shell Program are wall, attic, and floor insulation and window replacements. In 2015, the Shell Program acquired over 174 MWh in first-year energy savings (see Table 3-7).

3.1.9 Opower Home Energy Reports

Avista launched a Home Energy Reports program in June 2013, targeting 25,200 Idaho high use electric customers. Eligibility for treatment included several criteria such as sufficient (2 year) billing history, enough peers to build comparison group, not in the control group, not a 'do not solicit' customer and high enough electric use to be cost-effectively treated. In an effort to reduce energy usage through behavioral changes, Home Energy Reports show personalized usage insights and energy saving tips. Customers also see a ranking of similar homes, comparison to themselves and a personal savings goal on the Reports. In addition to closely matching usage curves, the similar home comparisons are also based on the following four criteria; square footage, home type, heat type and proximity.

As shown in Table 3-8, initial participating customer counts began at higher counts than the



program targets to account for opt-outs and attrition. Customers have the choice of receiving the reports and can opt-out at any time. Attrition results in customers closing their Avista account and therefore no longer being counted in the Program.

The program saved 2,815 MWh (gross verified) in Idaho over the 2014-2015 biennium (see Table 3-9).

3.1.10 Customer Outreach

Avista's programs encourage the customer to take action through participation in currently available programs. Energy efficiency outreach efforts are varied and usually are a combination of both broad reach and targeted media as well as attendance at local community events. Energy Efficiency is also featured throughout the year in Avista's "Connections" monthly newsletter, distributed with the bill and posted online.

3.1.10.1 Residential Customer Outreach

Avista's residential outreach included the repeat of the popular broad reach media promotions "Efficiency Matters" (April-June). A bill insert in the early spring offered tips to manage energy use and a link to rebate offerings.

Avista conducted four Energy Fairs in September and October – two were held in Spokane, one in Lewiston, ID and another in Post Falls, ID. Communications tactics used to increase awareness of the Energy Fairs included a media partnership with KXLY (ABC), posters, emails, news releases, and print/ radio/ online advertising.

In October and November, Avista ran a campaign to increase awareness of/ participation in energy efficiency programs for residential customers. The campaign utilized radio and online advertising to communicate low-cost/ no-cost energy savings tips and to promote the rebates we offer. It also included direct mail, which highlighted our enhanced electric-to-natural gas conversion rebate. Social media was utilized throughout the campaign to extend reach.

We continued to update and promote the online fuel cost calculator that helped customers understand the value of natural gas compared to other heating fuel types. We also leveraged local sponsorships to highlight "Energy Efficiency Night" at Spokane Chiefs hockey and Gonzaga University basketball games.

In November, we fielded a survey to determine customer opinions on energy efficiency – including awareness of and participation in Avista's programs.

We also had varied activities for commercial and industrial customers. Print ads and case studies featuring two of our large account customers ran in various local, regional, trade, and national (zoned) publications (September-December). We updated collateral and delivered via

the commercial account executives to highlight the multifamily natural gas direct use program. Targeted print advertising opportunities were utilized at local contractor associations that promoted residential programs as well as engaged developers.

3.1.10.2 Nonresidential Customer Outreach

In 2015 we continued our effort of building awareness of energy efficiency and programs through our electronic newsletter to commercial customers.

While we moved away from quarterly updates due to a lack of engagement from dealers, we continued to offer 1-2 rounds of updates for HVAC dealers focused on primarily residential programs and outreach for lighting contractors and electricians focused on commercial lighting. We offered these in various locations throughout the service territory and through webinar to increase accessibility.

As opportunities arise, energy efficiency tips are provided to local media outlets. Typical topics include winter weather and summer heat energy efficiency tips. Avista provides updates to area vendors about program information through mailings and webinars who in turn pass that information on to their customers. The general awareness efforts successfully position Avista to actively pursue and react to these earned media opportunities.

These are the highlights of specific activities that are reinforced and compliment the ongoing outreach and messaging through the website, customer service reps, printed rebate forms, trainings, sponsorships, etc.



Table 3-1: 2015 ID Residential Appliance Recycling Summary¹

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Refrigerator	90	\$2,700	57,240	-	\$15,414	\$0	\$0	\$2,700	\$1,306
Freezer	23	\$690	14,076	-	\$4,390	\$0	\$0	\$690	\$372
Total	113	\$3,390	71,316	-	\$19,804	\$0	\$0	\$3,390	\$1,678

Table 3-2: 2015 ID Electric HVAC Program Summary¹

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
E Smart Thermostat Diy	2	\$103	1,922	-	\$847	\$0	\$0	\$301	\$72
E Electric To Air Source Heat Pump	64	\$60,406	155,370	-	\$162,723	\$0	\$0	\$361,904	\$13,791
E Variable Speed Motor	226	\$23,543	94,859	-	\$62,336	\$0	\$0	\$225,395	\$5,283
E Smart Thermostat Paid Install	11	\$1,136	10,571	-	\$4,658	\$0	\$0	\$11,424	\$395
Total	303	\$85,188	262,722	-	\$230,564	\$0	\$0	\$599,024	\$19,541

Table 3-3: 2015 ID Electric Water Heat Program Summary²

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Simple Steps: Clothes Washer	432	\$15,120	57,024	-	\$24,763	\$0	\$0	\$34,560	\$2,099
Simple Steps Showerheads	1,971	\$13,639	158,849	3,063	\$82,051	\$12,317	\$0	\$23,652	\$6,954
E Electric Water Heater	6	\$124	660	-	\$469	\$0	\$0	\$3,132	\$40
Total	2,409	\$28,883	216,533	3,063	\$107,283	\$12,317	\$0	\$61,344	\$9,093

¹ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.

² All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 3-4: 2015 ID ENERGY STAR Homes Electric Program Summary²

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
E Energy Star Home - Stick Built, Id	2	\$4,130	26,801	-	\$46,071	\$0	\$0	\$12,000	\$3,905
E Estar Home - Manuf, Furnace	12	\$9,913	106,114	-	\$142,464	\$0	\$1,978	\$36,000	\$12,074
Total	14	\$14,043	132,915	-	\$188,535	-	\$1,978	\$48,000	\$15,979



Table 3-5: 2015 ID Electric Fuel Conversion Program Summary³

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
E Electric To Natural Gas Water Heater	13	\$7,866	47,010	(2,586)	\$33,371	-\$12,531	\$0	\$22,160	\$2,828
E Electric To Natural Gas Wall Heater	3	\$4,027	31,873	(1,398)	\$34,508	-\$10,095	\$0	\$14,967	\$2,925
E Electric To Natural Gas Furnace	157	\$372,865	1,166,064	(78,142)	\$1,464,686	-\$564,239	\$0	\$648,219	\$124,137
E Electric To Natural Gas Fur & Wh	168	\$555,115	1,541,530	(119,816)	\$1,936,305	-\$865,157	\$0	\$765,369	\$164,109
Total	341	\$939,873	2,786,477	(201,942)	\$3,468,870	-\$1,452,021	\$0	\$1,450,715	\$293,999

Table 3-6: 2015 ID Electric Residential Lighting Program Summary³

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Simple Steps LED	36,298	\$34,063	923,288	-	\$646,078	\$0	\$0	\$242,424	\$54,757
Simple Steps CFL	189,226	\$129,892	4,179,278	-	\$1,852,813	\$0	\$0	\$392,495	\$157,032
Customer Outreach CFLs (Residential)	1,584	\$2,919	47,639	-	\$20,639	\$0	\$0	\$2,827	\$1,749
Customer Outreach LEDs (Residential)	295	\$1,646	1,161	-	\$813	\$0	\$0	\$1,594	\$69
Total	227,403	\$168,521	5,151,365	-	\$2,520,342	\$0	\$0	\$639,341	\$213,608



Table 3-7: 2015 ID Electric Shell Program Summary³

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
E Manuf Attic Insulation With Electric Heat	1	\$170	197	-	\$391	\$0	\$0	\$706	\$33
E Attic Insulation With Electric Heat	23	\$4,585	8,930	-	\$11,217	\$0	\$813	\$20,494	\$951
E Floor Insulation With Electric Heat	6	\$1,197	3,053	-	\$3,835	\$0	\$212	\$6,393	\$325
E Wall Insulation With Electric Heat	5	\$1,283	5,199	-	\$6,531	\$0	\$141	\$7,769	\$554
E Window Replc From Double Pane W Elec Heat	70	\$33,860	59,092	-	\$74,225	\$0	\$0	\$277,101	\$6,291
E Window Replc From Single Pane W Elec Heat	78	\$33,497	97,980	-	\$123,073	\$0	\$0	\$303,972	\$10,431
Total	183	\$74,593	174,453	-	\$219,272	\$0	\$1,166	\$616,435	\$18,584

Table 3-8 2014-2015 ID Opower Participation Summary

State	Program Target	Initial Participating Customers	Closed Accounts		Participating Customers 2015 Year-End
			2014	2015	
ID	25,200	22,122	2,756	1,731	17,635

Table 3-9: 2014-2015 ID Electric Residential Opower Program Summary

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
OPower Home Energy Reports	1	\$0	2,814,300	-	\$312,482	\$0	\$0	\$0	\$501,853

³ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



3.2 Low Income

The Company leverages the one Community Action Program (CAP) agency to deliver energy efficiency programs for the Company's low income residential customers in the Idaho service territory. The Community Action Partnership out of Lewiston has resources to income qualify, prioritize and treat clients homes based upon a number of characteristics. In addition to the Company's annual funding, the agency has other monetary resources that they can leverage when treating a home with weatherization or other energy efficiency measures. The agencies either have in-house or contractor crews to install many of the efficiency measures of the program.

3.2.1 Program Changes

In 2015, the Company continued to reimburse Community Action Agencies for 100% of the cost of installation for a select group of "Approved" energy efficiency measures, and continued to offer an additional "Rebate List" of other energy efficiency measures. This rebate list allows the agencies to receive funding for measures that are not as cost-effective as those on the Approved List but are still necessary for the homes overall functionality. The reimbursement amount is only equal to the energy value of the improvement from the Utility perspective. This approach focuses the Agency towards installing measures that have the greatest cost-effectiveness, from the utility perspective, but still offers an opportunity to fund other measures if needed. To allow for additional flexibility, the agency may also choose to utilize their Health and Safety dollars to fully fund the cost of the measures on the Rebate list.

3.2.2 2015 Program Details

Eligible efficiency improvements are similar to those offered under the traditional residential rebate programs, as well as mirroring a variety of the same measures found on the state program priority list. An Avista approved measure list is provided to the agencies in an attempt to manage the cost-effectiveness of the low income program (see Table 3-10). The agencies are given discretion to spend their allotted funds on either electric or natural gas efficiency improvement based on the need of the client. The program includes improvements to insulation, infiltration, ENERGY STAR® doors and refrigerators along with fuel conversion from electric resistance space and water heat to natural gas. Avista's funding covers the full cost of the improvement from the Approved Measures list.

Table 3-10: 2015 Low Income Program Approved Measure List

Electric Measures	Natural Gas Measures
<ul style="list-style-type: none"> • Air infiltration • Insulation (floor, ceiling, wall) • Duct sealing • ENERGY STAR doors • Electric to Natural Gas Conversion (Space and Water Heat) • ENERGY STAR Refrigerators 	<ul style="list-style-type: none"> • Insulation (Wall, Ceiling, and Floor) • Air infiltration • Duct sealing • ENERGY STAR doors • ENERGY STAR windows

Along with the Approved Measure List, Avista has also established a “Rebate List” of eligible measures. The Rebate List allows the agencies to receive funding for other measures that are not as cost-effective as those on the Approved List but are still necessary for the homes overall functionality. This measure list is outlined in Table 3-11.

Table 3-11: 2015 Low Income Program Rebate Measure List

Electric Measures	Natural Gas Measures
<ul style="list-style-type: none"> • Duct insulation • ENERGY STAR refrigerators (for replacement of a refrigerator that is not fully operational) • High efficient water heater • Electric to air source heat pump • Electric to natural gas water heater • ENERGY STAR windows 	<ul style="list-style-type: none"> • Duct insulation • High efficiency furnace • High efficiency water heater

Individually, the annual contract for each agency allows them to spend their annually allotted funds on either natural gas or electric efficiency measures at their discretion, and charge a 15 percent administration fee towards the cost of each measure. In addition, up to 15 percent of their annual funding allocation may be used towards Health and Safety improvements in support of energy efficiency measures installed in the home. It is at the agencies’ discretion whether or not to utilize their funds for health and safety and other home repairs to ensure the habitability of the home where the energy efficiency improvements were installed.

For the 2015 program year, Idaho income-qualified homes installed over 3,760 individual measures, acquiring more than 426 MWh . Refer to Table 3-12 for details on low income programs.

In partnership with the Company’s Demand-Side Management efforts, Avista’s Consumer Affairs department conducts conservation education and outreach for our low income, senior and vulnerable customers. The company reaches the target population through workshops,



energy fairs, mobile and general outreach. Each of these methods include demonstrations and distribution of low-cost and no-cost materials with a focus on energy efficiency, conservation tips and measures, and information regarding energy assistance that may be available through agencies. Low income and senior outreach goals increase awareness of energy assistance programs such as the Avista Low Income Rate Assistance Program (LIRAP) in Washington and Oregon and the Low Income Home Energy Assistance Program (LIHEAP) and Project Share in all jurisdictions.

The company has recognized the following educational strategies as efficient and effective activities for delivering the energy efficiency and conservation education and outreach:

- Energy Conservation workshops for groups of Avista customers where the primary target audiences are seniors and low income participants.
- Energy Fairs where attendees can receive information about low cost/no cost methods to weatherize their home; this information is provided in demonstrations and limited samples. In addition, fair attendees can learn about billing assistance and demonstrations of the online account and energy management tools. Community partners that provide services to low income populations and support to increase personal self-sufficiency are invited, at no cost, to host a booth to provide information about their services and how to access them.
- Mobile Outreach is conducted through the Avista Energy Resource Van (ERV) where visitors can learn about effective tips to manage their energy use, bill payment options and community assistance resources.
- General Outreach is accomplished by providing energy management information and resources at events (such as resource fairs) and through partnerships that reach our target populations. General Outreach also includes bill payment options and assistance resources in senior and low income publications.

In 2015, in Idaho, Avista facilitated 13 workshops with 278 participants; two energy fairs that had 500 attendees; 21 mobile outreach events to 5,273 visitors; and 8 general outreach partnerships and events reaching 1,014 individuals for a total of 7,065 contacts with senior and low income individuals.



Table 3-12: ID 2015 Electric Low-Income Measures Summary⁴

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs*	Non-incentive Utility Costs
Customer Outreach CFLs (Low Income)	1,549	\$4,764	23,235	-	\$10,066	\$0	\$0	\$4,764	\$3,307
Customer Outreach LEDs (Low Income)	1,838	\$29,669	23,894	-	\$16,720	\$0	\$0	\$29,669	\$5,492
E INS - Attic	22	\$12,639	4,949	-	\$11,228	\$0	\$0	\$12,639	\$3,688
E INS - DUCT	14	\$909	528	-	\$509	\$0	\$0	\$909	\$167
E INS - FLOOR	37	\$72,106	20,031	-	\$45,444	\$0	\$0	\$72,106	\$14,928
E INS - WALL	6	\$8,385	1,211	-	\$2,747	\$0	\$0	\$8,385	\$903
E HE Water Heater	1	\$49	61	-	\$30	\$0	\$0	\$49	\$10
E Energy Star Windows	33	\$1,697	578	-	\$1,311	\$0	\$63,059	\$1,697	\$431
E Energy Star Doors	33	\$23,103	4,766	-	\$10,812	\$0	\$53,827	\$23,103	\$3,552
E To G Furnace Conversion	30	\$148,961	179,982	(2,009)	\$226,074	-\$14,509	\$45,000	\$148,961	\$74,264
E To G H2o Conversion	22	\$60,549	67,675	(868)	\$49,939	-\$3,718	\$11,000	\$60,549	\$16,405
E To Heat Pump Conversion	9	\$29,673	43,157	-	\$45,199	\$0	\$0	\$29,673	\$14,848
E Air Infiltration	59	\$87,818	16,674	-	\$17,463	\$0	\$0	\$87,818	\$5,737
Health & Human Safety	55	\$106,172	385	-	\$17	\$0	\$133,447	\$106,172	\$6
E Duct Sealing	54	\$21,812	39,688	-	\$41,566	\$0	\$0	\$21,812	\$13,654
Total	3,762	\$608,304	426,815	(2,877)	\$479,128	-\$18,227	\$306,334	\$608,304	\$157,391

*Customer incremental costs are the incremental measure cost absent any incentive. Therefore, the values should not be zero for the low income program. These incremental values are used in cost-effectiveness calculations.

⁴ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



3.3 Nonresidential

The nonresidential energy efficiency market is delivered through a combination of prescriptive and site-specific offerings. Any measure not offered through a prescriptive program is automatically eligible for treatment through the site-specific program, subject to the criteria for participation in that program. Prescriptive paths for the nonresidential market are preferred for measures that are relatively small and uniform in their energy efficiency characteristics.

In 2015, 333 prescriptive and site specific nonresidential projects were incented. Avista contributed more than \$750,000 for energy efficiency upgrades in nonresidential applications. Nonresidential programs realized over 5,000 MWh in annual first-year energy savings. Table 3-14 and Table 3-15 provide detail on the electric nonresidential programs.

3.3.1 Program Changes

Program changes made at the beginning of 2015 to the nonresidential programs include the addition of new program offerings and changes to eligibility or incentive levels. Avista communicates the majority of program changes once the Business Plan is finalized and those changes become effective at the beginning of the year. In addition, some program changes are made throughout the year as necessary but these are less typical.

For nonresidential programs, rebates were updated to reflect business planning analysis to include inputs such as new unit energy savings (UES) and cost values. Changes were effective January 1, 2015 and Avista accepted rebate applications through March 31, 2015 for 2014 measures and amounts. This 90 day grace period allows for a smooth transition when rebate programs change to allow enough time for customers in the pipeline to complete their projects yet close out changes in a timely but balanced approach.

The following sections outline additions, adjustments and discontinuations of nonresidential programs and incentive levels beginning in 2015.

3.3.1.1 Nonresidential Program New Offerings

In 2015, Avista added the Small Business program to their nonresidential offering.

3.3.1.2 Nonresidential Program Discontinuations

The following programs/measures were discontinued during the 2015 program year:

- Standby Generator Block Heater Program – last day to apply for rebate was March 31, 2015
- Commercial Water Heater Rebate Program – last day to apply for rebate was March 31,

2015

- Commercial Window Program, New and Retrofit – last day to apply for rebate was March 31, 2015
- Commercial Food Service Equipment- Hot Food Holding Cabinets measure was discontinued

3.3.1.3 Nonresidential Program Adjustments

The following adjustments in program requirements or incentive levels were made to the nonresidential programs beginning January 2015:

- Commercial HVAC Variable Frequency Drive Retrofit was increased to \$130 per HP for all
- Commercial Clothes Washer rebates was increased to \$100 per unit
- Avista increased the incentives for canopy LED lighting fixture retrofits and added the LED Sign Lighting and T12/T8 to High Performance T8 or LEDs to the Commercial Lighting Program. New measures and increased incentives took effect January 1, 2015. Commercial Lighting Program changes are listed in Table 3-13.

Table 3-13 Nonresidential Lighting Interior and Exterior Changes

Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive**	Notes
Increased Incentive	400 watt Canopy HID	122-175 watt LED* Canopy Fixture	\$255	\$325	Exterior**
Increased Incentive	320 watt Canopy HID	122-160 watt LED* Canopy Fixture	\$180	\$250	Exterior**
Addition	250 watt Canopy HID	85-140 watt LED* Canopy Fixture	\$145	\$155	Exterior**
Addition	T12 Sign	Exterior LED Sign Lighting	Site Specific	\$17 per sq ft	Sign
Addition	1000 watt HID	400–575 watt Digital HID Fixture	Site Specific	\$225	Exterior**
Decreased Incentive	400 watt HID	250 watt Digital HID Fixture	\$260	\$150	Exterior**
Modified Eligibility	400 watt HID	122-175 watt LED* Fixture	\$255	\$255	Exterior**
Modified Eligibility	320 watt HID	122-160 watt LED* Fixture	\$180	\$180	Exterior**
Modified Eligibility	250 watt HID	85-140 watt LED* Fixture	\$145	\$145	Exterior**



Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive**	Notes
Modified Eligibility	175 watt HID	35-85 watt LED* Fixture	\$135	\$135	Exterior**
Modified Eligibility	150 watt HID	35-50 watt LED* Fixture	\$130	\$130	Exterior**
Modified Eligibility	90-100 watt HID	25-50 watt LED	\$75	\$75	Exterior**
Modified Eligibility	70-90 watt HID	15-35 watt LED* Fixture	\$55	\$55	Exterior**
Addition	4'4lamp T12/T8	4'3 lamp HP T8***	Site Specific	\$32	Interior
Addition	4'4lamp T12/T8	4'2 lamp HP T8***	Site Specific	\$35	Interior
Addition	4'3lampT12/T8	LED* 2x4 Fixture	Site Specific	\$60	Interior
Addition	4'3lamp T12/T8	4'2 lamp HP T8***	Site Specific	\$15	Interior
Addition	4'2lamp T12/T8	4'1 lamp HP T8***	Site Specific	\$13	Interior
Addition	4'1lamp T12/T8	4'1 lamp HP T8***	Site Specific	\$13	Interior
Addition	8'4lamp T12/T8	8'4 lamp or 4'8 lamp HP T8***	Site Specific	\$54	Interior
Addition	8'2lamp T12/T8	LED* Fixture	Site Specific	\$80	Interior
Addition	8'1lamp T12/T8	LED* Fixture	Site Specific	\$40	Interior
Increased Incentive	400 watt HID	4 lamp T5 or 6 lamp HP T8 Fixture	\$105	\$120	Interior
Increased Incentive	400 watt HID	4 lamp T5 or 6 lamp HP T8 Fixture w/ OC	\$145	\$150	Interior
Increased Incentive	400 watt HID	8 lamp HP T8 Fixture	\$115	\$125	Interior
Increased Incentive	400 watt HID	8 lamp HP T8 Fixture with OC sensor	\$145	\$155	Interior
Increased Incentive	250 watt HID	4 lamp HP T8* or 2 lamp T5	\$50	\$90	Interior



Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive**	Notes
Increased Incentive	250 watt HID	4 lamp HP T8* or 2 lamp T5 plus OC Sensor	\$80	\$120	Interior
Increased Incentive	75-100 watt incandescent	12-20 watt LED* lamp	\$10	\$15	Interior
Increased Incentive	60 watt Incandescent	9-13 watt LED* lamp	\$8	\$12	Interior
Increased Incentive	40 watt Incandescent	6-10 watt LED* lamp	\$6	\$10	Interior
Increased Incentive	50 watt MR16	6-9 watt LED* lamp	\$10	\$12	Interior
Increased Incentive	35 watt MR16	4-6 watt MR16 LED* lamp	\$8	\$11	Interior
Increased Incentive	20 watt MR16	2-4 watt MR16 LED* lamp	\$ 5	\$10	Interior
Deletion	Exit Signs	New LED Exit Signs	\$20	\$0	Interior
Increased Incentive	No Oc Sensor	Occupancy Sensor with relays	\$20	\$30	Interior

* LED Requirements-Fixtures and Lamps (for each type) must be on approved LED lists; go to www.lightingdesignlab.com. Invoices must include LED Manufacturer name, model #, and wattage. Application must include a printed screen shot (.pdf) of the LED product on the approved list for each fixture and/or lamp.

** New construction incentives takes effect January 1, 2015.

The remaining sub-sections outline the nonresidential prescriptive and site specific program paths offered in 2015 and the small business program which began mid-2015. The verified participation, incentives, energy savings, etc for each measure offered in the programs is outlined in Table 3-14 and Table 3-15.

3.3.2 Prescriptive Path

Prescriptive paths do not require pre-project contracting, as the site-specific program does, and thus lend themselves to streamlined administrative and marketing efforts. Incentives are established for these prescriptive programs by applying the incentive formula contained within Schedules 90 and 190 to a prototypical installation. Actual costs and savings are tracked, reported and available to the third-party impact evaluator. When applicable, the prescriptive measures utilize RTF unit energy savings.



3.3.3 Site Specific Path

Site specific is the most comprehensive offering of the nonresidential segment and brings in more than half of the nonresidential savings. Avista's Account Executives work with nonresidential customers to provide assistance in identifying energy efficiency opportunities. Customers receive technical assistance in determining potential energy and cost savings as well as identifying and estimating incentives for participation. Site specific incentives, in which the tier structure applies, are capped at seventy percent of the incremental project cost for lighting projects with simple paybacks of less than 3 years and non-lighting projects (or lighting projects with a verified life of 40,000 hours or more) with simple paybacks less than 5 years. All other project incentives calculated under the tier structure will be capped at fifty percent of the incremental project cost. Simple payback criteria for eligible projects is greater than 1 year and less than 8 years for lighting measures or less than 13 years for non-lighting and LED lighting measures. Site specific projects include appliances, compressed air, HVAC, industrial process, motors (non-prescriptive), shell and lighting with the majority being lighting measures.



Table 3-14: 2015 ID Electric Nonresidential Prescriptive Measures Summary⁵

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
PSC Commercial Windows and Insul	4	\$2,032	10,200	-	\$8,629	\$0	\$0	\$19,798	\$1,235
PSC EnergySmart- Case Lighting	34	\$78,300	719,497	-	\$192,996	\$0	\$0	\$232,584	\$27,622
PSC EnergySmart- Industrial Proc	38	\$45,939	390,989	-	\$230,771	\$0	\$0	\$131,033	\$33,028
PSC Food Service Equipment	6	\$1,563	32,362	-	\$16,053	\$0	\$0	\$27,524	\$2,298
PSC Green Motors Rewind	5	\$762	5,995	-	\$2,536	\$0	\$0	\$22,772	\$363
PSC Lighting Exterior	144	\$197,781	1,192,613	-	\$728,272	\$0	\$38,346	\$645,933	\$104,231
PSC Lighting Interior	44	\$53,937	717,780	-	\$437,034	\$0	\$55,059	\$138,193	\$62,549
PSC Motor Controls HVAC	3	\$28,343	244,166	-	\$156,866	\$0	\$0	\$51,755	\$22,451
Total	278	\$408,656	3,313,602	-	\$1,773,157	\$0	\$93,405	\$1,269,593	\$253,775

⁵ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 3-15: 2015 ID Electric Nonresidential Site Specific Measures Summary⁶

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
SS Appliances	2	\$624	3,877	-	\$9,726	\$0	\$0	\$3,196	\$1,392
SS HVAC Combined	1	\$486	5,041	-	\$3,266	\$0	\$0	\$897	\$467
SS Industrial Process	1	\$11,012	68,455	-	\$54,746	\$0	\$0	\$36,448	\$7,835
SS EnergySmart-Industrial Proce	5	\$17,898	188,890	-	\$185,382	\$0	\$0	\$46,389	\$26,532
SS Lighting Exterior	20	\$69,645	552,892	-	\$809,076	\$0	\$132	\$270,642	\$115,796
SS Lighting Interior	23	\$90,593	693,679	-	\$1,615,454	\$0	\$361	\$265,446	\$231,205
SS Multifamily	2	\$162,029	272,581	(12,620)	\$169,923	-\$58,892	\$0	\$442,888	\$24,319
SS HVAC Heating	1	\$882	5,482	-	\$3,615	\$0	\$0	\$5,107	\$517
Total	55	\$353,168	1,790,898	(12,620)	\$2,851,188	-\$58,892	\$493	\$1,071,013	\$408,064

⁶ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



4 Evaluation, Measurement, and Verification (EM&V)

Nexant, Inc., in partnership with Research Into Action, (the evaluation team) was retained as the Company's external evaluator to independently measure and verify the portfolio energy savings for the 2014-2015 biennium period. The energy efficiency savings and associated cost-effectiveness results presented in this 2015 Annual Report are based on the evaluation findings and are presented as gross, verified savings.

The impact and process evaluation reports can be found in the Appendix.



5 Generation and Distribution Efficiency

Avista did not acquire any generation and distribution savings in Idaho in 2015.



6 Regional Market Transformation

Avista's local energy efficiency portfolio consists of programs and supporting infrastructure designed to enhance and accelerate the saturation of energy efficiency measures through a combination of financial incentives, technical assistance, program outreach and education. It is not feasible for Avista to independently have a meaningful impact upon regional or national markets.

Consequently, utilities within the northwest have cooperatively worked together through the Northwest Energy Efficiency Alliance (NEEA) to address those opportunities that are beyond the ability or reach of individual utilities. Avista has been participating in and funding NEEA since the 1997 founding of the organization.

NEEA allocates the savings using funder shares. The shares vary based on the funding cycle. Savings from previous investments receive the previous funder share. Savings from current investments receive the current funder share.

Avista's criteria for funding NEEA's electric market transformation portfolio calls for the portfolio to deliver incrementally cost-effective resources beyond what could be acquired through the Company's local portfolio alone. Avista has historically communicated with NEEA the importance of NEEA delivering cost-effective resources to our service territory. The Company believes that NEEA will continue to offer cost-effective electric market transformation in the foreseeable future. Avista will continue to play an active role in the organizational oversight of NEEA. This will be critical to insure that geographic equity, cost-effectiveness and resource acquisition continue to be primary areas of focus.

NEEA estimates Avista's 2015 annual electricity energy savings are 0.46 aMW (4,029 MWh) (Table 7-2). These savings are above the NEEA baseline⁷ and not counted as part of Avista's Idaho local program savings.⁸

⁷ NEEA estimates Baseline as the savings that would have occurred without NEEA, utility, the Bonneville Power Administration, and the Energy Trust of Oregon's market intervention.

⁸ NEEA estimates the share of energy savings claimed through Bonneville, the Energy Trust of Oregon and local utilities based on program data and on NEEA's annual survey of local utility programs.

Table 6-1 2015 Annual Report Savings Estimates for Idaho Service Territory (aMW)

2015 (aMW)	Total Regional Savings	Co-Created Savings	Net Market Effects*
Residential	1.40	0.37	0.36
Commercial	0.29	0.06	0.05
Industrial	0.12	0.04	0.04
Agriculture	0.00	0.00	0.00
TOTAL	1.81	0.47	0.46

*Net Market Effects are electric energy savings less savings counted as Baseline and/or claimed through the Energy Trust of Oregon, Bonneville Power Administration, and local utilities.



7 Energy Efficiency Expenditures

During 2015, Avista incurred over \$5.3 million in costs for the operation of electric energy efficiency programs in Idaho. Of this amount, \$564,000 was contributed to the Northwest Energy Efficiency Alliance to fund regional market transformation ventures.

Forty seven percent of expenditures were returned to ratepayers in the form of incentives or products (e.g. CFLs). During the 2015 calendar year, a little over \$311 thousand, or 5.9 percent, was spent on evaluation in an effort to continually improve program design, delivery and cost-effectiveness.

Evaluation, as well as other implementation expenditures, can be directly charged to the appropriate state and/or segment(s). In cases where the work benefits multiple states or segments, these expenditures are charged to a “general” category and are allocated based on avoided costs for cost- effectiveness purposes.

The expenditures illustrated in the following tables represent actual payments incurred in the 2015 calendar year and often differ from the cost-effectiveness section where all benefits and costs associated with projects completing in 2015 are evaluated in order to provide matching of benefits and expenditures resulting in a more accurate look at cost-effectiveness.

Table 7-1 and Table 7-2 provide a summary of energy efficiency expenditures by fuel type.

Table 7-1: Avista Electricity Energy Efficiency Expenditures (ID)*

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	\$1,315,523	\$529,201	\$21	\$0	\$1,844,745
Low Income	\$379,332	\$62,367	\$0	\$0	\$441,699
Nonresidential	\$797,020	\$370,950	\$19,891	\$0	\$1,187,861
Regional	\$0	\$852	\$27,590	\$563,571	\$592,013
General	\$0	\$708,784	\$263,830	\$0	\$972,614
Research	\$0	\$252,461	\$0	\$0	\$252,461
Total	\$2,491,875	\$1,924,615	\$311,332	\$563,571	\$5,291,394

* Year-end accruals for low income incentives for Washington electric and Idaho electric did not occur correctly, but the tariff rider balances for both are correct as of the end of January 2016. The expenditure charts match the financial accounting system, but for accuracy in the cost effectiveness tests \$273,052.57 low income incentive expenditures have been moved resulting in a decrease in Washington electric low income expenditures and an increase in Idaho electric low income expenditures.

Table 7-2: Avista Natural Gas Energy Efficiency Expenditures (ID)*

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	\$0	\$0	\$0	\$0	\$0
Low Income	\$0	\$0	\$0	\$0	\$0
Nonresidential	\$0	\$0	\$0	\$0	\$0
Regional	\$0	\$0	\$0	\$50,807	\$50,807
General	\$0	\$127	\$0	\$0	\$127
Total	\$0	\$127	\$0	\$50,807	\$50,680



8 Tariff Rider Balances

As of the start of 2015, the Idaho electric and natural gas (aggregate) tariff rider balances were underfunded by \$1,634,854. During 2015, \$6.5 million in tariff rider revenue was collected to fund energy efficiency while \$5.3 million was expended to operate energy efficiency programs. The \$1.6 million under-collection of tariff rider funding resulted in a year-end balance of \$493 thousand underfunded balance.

Table 8-1 illustrates the 2015 tariff rider activity by fuel type.

Table 8-1 Tariff Rider Activity (2015)

	Electric	Natural Gas
Beginning Balance (Underfunded)	(\$1,624,766)	(\$10,088)
Energy Efficiency Funding	\$6,484,376	\$0
Net Funding of Operations	\$4,859,610	\$10,088
Energy Efficiency Expenditures	\$5,291,394	\$50,681
Ending Balances (Underfunded)	(\$431,784)	(\$60,768)



9 Actual to Business Plan Comparison

For 2015 operations, Avista exceeded budgeted electric energy efficiency expenditures by just under \$300 thousand, or less than six percent, and natural gas expenditures were exceeded by \$51 thousand. The biggest driver of expenditures is incentives. This demand for incentives was slightly higher than anticipated and its impact resulted in the underfunding in the Idaho electric programs. The Idaho Natural Gas Portfolio was discontinued in 2014 but minimal expenditures were made in 2015 due to carry-over measures from 2014.

While the business plan provides an expectation for operational planning, Avista is required to incent all energy efficiency that qualifies under Schedules 90 and 190. Since customer incentives are the largest component of expenditures, customer demand can easily impact the funding level of the Tariff Riders.

Table 9-1 provides detail on the budget to actual comparison of energy efficiency expenditures by fuel type.

Table 9-1 Business Plan to Actual Comparison⁹

	Electric	Natural Gas
Business Plan		
Incentives Budget	\$3,159,736	\$0
Non-incentives and Labor	\$2,430,543	\$0
Total Budgeted Expenditures	\$5,590,279	\$0
Actual 2015 Expenditures		
Incentives	\$2,491,875	\$0
Non-incentives and Labor	\$2,799,518	\$50,681
Total Actual Expenditures	\$5,291,394	\$50,681
Variance (Unfavorable)	\$298,885	(\$50,681)

⁹ Budget values are from 2015 Business Plan



10 Net Cost Effectiveness Results

This section reports the cost-effectiveness results with net to gross values, including freeridership and spillover, as determined in the impact evaluations conducted on the 2014-2015 programs. In summary, electric net TRC is 1.03 and the electric net PAC test benefit-cost ratio is 1.48. Table 10-1 through Table 10-4 illustrate electric cost-effectiveness results.



10.1 Electric Cost Effectiveness Results

Table 10-1: 2015 ID Electric Total Resource Cost (TRC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$7,138,288	\$485,674	\$7,623,962
Natural Gas Avoided Costs	-\$1,080,219	-\$18,227	-\$1,098,446
Non-Energy Benefits	\$97,043	\$306,334	\$403,376
TRC Benefits	\$6,155,112	\$773,781	\$6,928,893
Non-Incentive Utility Costs	\$2,268,943	\$159,542	\$2,428,485
Customer Costs	\$3,663,386	\$616,385	\$4,279,770
TRC Costs	\$5,932,329	\$775,927	\$6,708,256
TRC Ratio	1.04	1.00	1.03
Residual TRC Benefits	\$222,783	-\$2,146	\$220,637

Table 10-2: 2015 ID Electric Program Administrator Cost (PAC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$7,138,288	\$485,674	\$7,623,962
Natural Gas Avoided Costs	-\$1,080,219	-\$18,227	-\$1,098,446
PAC Benefits	\$6,058,069	\$467,447	\$6,525,516
Non-Incentive Utility Costs	\$2,268,943	\$159,542	\$2,428,485
Incentive Costs	\$1,356,212	\$616,385	\$1,972,597
PAC Costs	\$3,625,155	\$775,927	\$4,401,082
PAC Ratio	1.67	0.60	1.48
Net PAC Benefits	\$2,432,914	-\$308,480	\$2,124,434



Table 10-3: 2015 ID Electric Participant Cost (PCT) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$10,135,501	\$667,521	\$10,803,022
Gas Bill Reduction	-\$50,408	-\$873	-\$51,281
Non-Energy Benefits	\$97,043	\$306,334	\$403,376
Participant Benefits	\$10,182,136	\$972,982	\$11,155,118
Customer Costs	\$3,663,386	\$616,385	\$4,279,770
Incentive Received	-\$1,356,212	-\$616,385	-\$1,972,597
Participant Costs	\$2,307,174	\$0	\$2,307,174
Participant Ratio	4.41	N/A	4.83
Net Participant Benefits	\$7,874,962	\$972,982	\$8,847,944

Table 10-4: 2015 ID Electric Rate Impact Measure (RIM) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	\$7,138,288	\$485,674	\$7,623,962
Non-Participant Benefits	\$7,138,288	\$485,674	\$7,623,962
Electric Revenue Loss	\$10,135,501	\$667,521	\$10,803,022
Non-Incentive Utility Costs	\$2,268,943	\$159,542	\$2,428,485
Customer Incentives	\$1,356,212	\$616,385	\$1,972,597
Non-Participant Costs	\$13,760,656	\$1,443,448	\$15,204,104
RIM Ratio	0.52	0.34	0.50
Net RIM Benefits	-\$6,622,368	-\$957,774	-\$7,580,142



Appendix A Idaho 2014-2015 Electric Impact Evaluation Report



Appendix B 2014-2015 Process Evaluation Report

