



ENERGY EFFICIENCY

WASHINGTON 2015
ANNUAL CONSERVATION
REPORT (ACR) & COST-
EFFECTIVE ANALYSIS

MAY 31, 2016

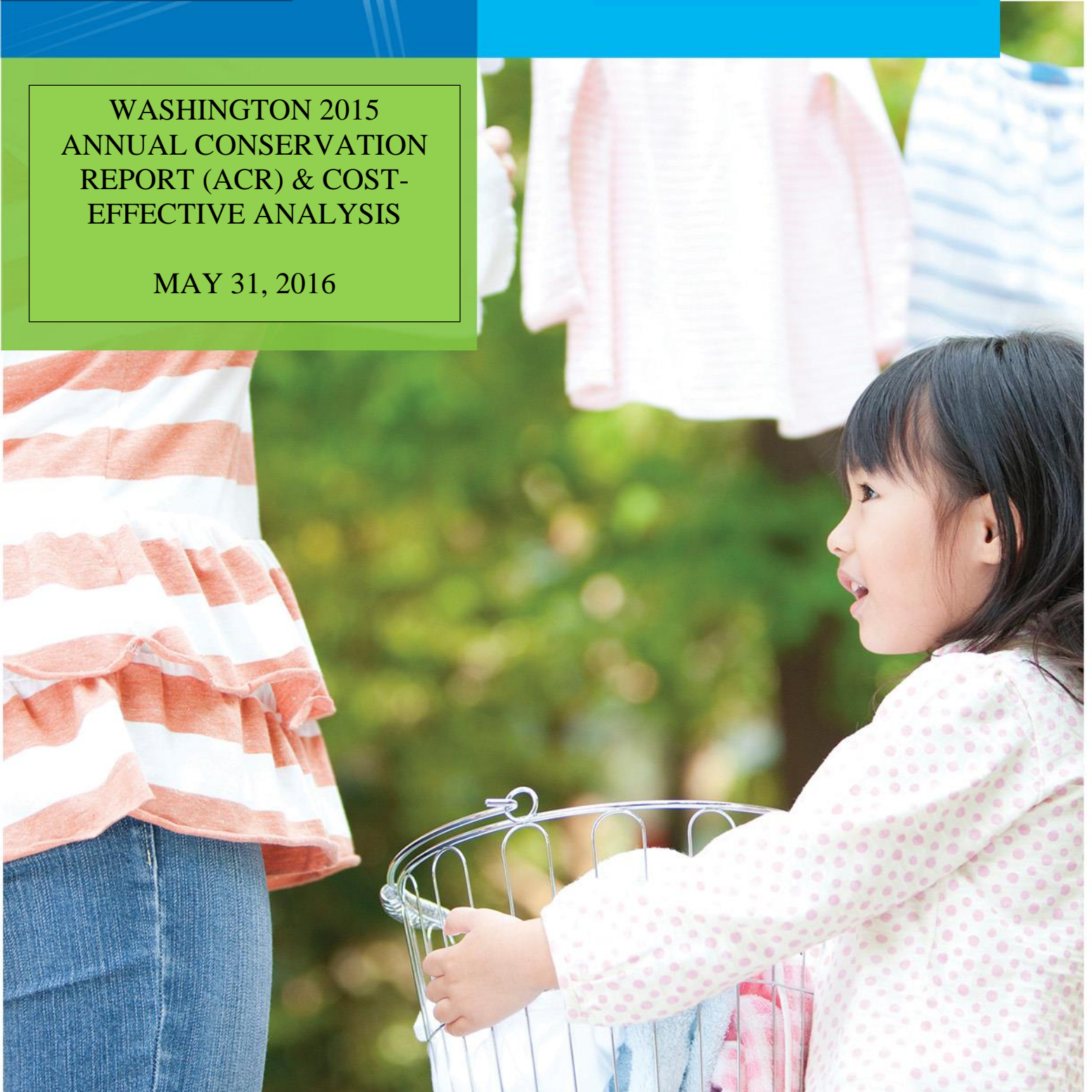


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1 Executive Summary

The 2015 Demand-Side Management (DSM) Annual Report summarizes Avista Utility's (Avista) annual energy efficiency achievements for its Washington electric and natural gas 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 and natural gas retail sales.

2015 is the second year of the third Biennial Conservation Plan (BCP) for Washington's Energy Independence Act (Initiative 937 or I-937). In 2015, Avista acquired 30,970 MWh (verified gross savings) in Washington and 659,033 therms (verified gross savings). A summary of acquired savings in 2015 by sector is provided for both fuels in Tables ES-1 and ES-2 below.

Avista's target as filed in its 2014-15 BCP is 68,204 MWh. In 2014 and 2015, Avista acquired 70,959 MWh (verified gross savings) in Washington, or 104% percent of its BCP two-year end-use efficiency target. 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 contribution. Avista's natural gas portfolio delivered 1,250,742 therms (verified gross savings) over the 2014 and 2015 biennium. This achieved 101 percent of the Company's 2014 and 2015 natural gas target of 1,239,042 therms as noted in the 2014 and 2015 Business Plans. Primary drivers for the natural gas savings include residential prescriptive HVAC and nonresidential site-specific HVAC.

Table ES-1: 2015 Washington Electric Energy Savings (Verified Gross)

Segment	kWh	Conversions	I-937 kWh Total
Residential	16,082,204	-5,365,595	10,716,609
Low Income	829,091	-619,524	209,567
Nonresidential	19,593,147	-425,389	19,167,758
Generation	249,000	N/A	249,000
Distribution	628,000	N/A	628,000
Total	37,381,442	-6,410,508	30,970,934



Table ES-2: 2015 Washington Natural Gas Savings (Verified Gross)

Segment	Therms	Conversions	Therms Total
Residential	343,395	-235,784	107,611
Low Income	13,154	-6,615	6,539
Nonresidential	563,343	-18,460	544,883
Total	919,892	-260,859	659,033

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. At present, the Washington Utilities and Transportation Commission (UTC) has requested that Avista operate its natural gas energy efficiency programs under the Program Administrator Cost (PAC) test, formerly known as the Utility Cost Test, rather than the traditional Total Resource Cost (TRC) test.

Benefit-to-cost ratios in excess of 1.00 indicate that the benefits exceed the costs. In 2015, the gross TRC benefit-to-cost ratios were 1.90 for electric and 0.32 for natural gas. The PAC test benefit-to-cost ratios were 3.79 for electric and 1.58 for natural gas.

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, Sections 2.1 through 1.1 present the cost-effectiveness of Avista’s DSM programs based on gross verified savings (utilizing evaluation findings and locked unit energy savings (UES) values as applicable) 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. Section 11 presents the cost effectiveness based on gross verified savings utilizing evaluated values for all programs and measures. Shown below in Table 2-2 through Table 2-13 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.

Avoided costs used for the cost-effectiveness valuation of the 2015 natural gas programs are the avoided costs from the most recently filed electric and natural gas IRPs.

In summary, electric and natural gas gross TRC is 1.90 and 0.32, respectively. Electric and natural gas PAC test benefit-cost ratios are 3.79 and 1.58, respectively. Table 2-2 through 2-13 illustrate electric, natural gas, and combined fuel cost-effectiveness, respectively. 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 WA Electric Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$37,490,427	\$783,668	\$38,274,095
Natural Gas Avoided Costs	-\$563,864	-\$42,783	-\$606,647
Non-Energy Benefits	\$423,806	\$313,764	\$737,570
TRC Benefits	\$37,350,369	\$1,054,650	\$38,405,019
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Customer Costs	\$15,555,605	\$909,461	\$16,465,066
TRC Costs	\$19,049,475	\$1,159,883	\$20,209,357
TRC Ratio	1.96	0.91	1.90
Residual* TRC Benefits	\$18,300,895	-\$105,233	\$18,195,662

*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 WA Electric Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$37,490,427	\$783,668	\$38,274,095
Natural Gas Avoided Costs	-\$563,864	-\$42,783	-\$606,647
PAC Benefits	\$36,926,563	\$740,886	\$37,667,449
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Incentive Costs	\$5,295,408	\$909,461	\$6,204,869
PAC Costs	\$8,789,277	\$1,159,883	\$9,949,160
PAC Ratio	4.20	0.64	3.79
Net PAC Benefits	\$28,137,285	-\$418,997	\$27,718,288



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

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$46,714,330	\$1,137,686	\$47,852,016
Gas Bill Reduction	-\$8,409	\$0	-\$8,409
Non-Energy Benefits	\$423,806	\$313,764	\$737,570
Participant Benefits	\$47,129,727	\$1,451,450	\$48,581,178
Customer Costs	\$15,555,605	\$909,461	\$16,465,066
Incentive Received	-\$5,295,408	-\$909,461	-\$6,204,869
Participant Costs	\$10,260,197	\$0	\$10,260,197
Participant Ratio	4.59	-	4.73
Net Participant Benefits	\$36,869,530	\$1,451,450	\$38,320,981

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

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	\$37,490,427	\$783,668	\$38,274,095
Non-Participant Benefits	\$37,490,427	\$783,668	\$38,274,095
Electric Revenue Loss	\$46,714,330	\$1,137,686	\$47,852,016
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Customer Incentives	\$5,295,408	\$909,461	\$6,204,869
Non-Participant Costs	\$55,503,607	\$2,297,569	\$57,801,177
RIM Ratio	0.68	0.34	0.66
Net RIM Benefits	-\$18,013,181	-\$1,513,901	-\$19,527,081



2.2 Natural Gas Cost Effectiveness Results

Table 2-6: 2015 WA Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	\$5,436,224	\$124,809	\$5,561,033
Electric Avoided Costs	\$314,901	\$3,256	\$318,157
Non-Energy Benefits	\$0	\$8,462	\$8,462
TRC Benefits	\$5,751,125	\$136,527	\$5,887,652
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Customer Costs	\$17,402,061	\$803,589	\$18,205,650
TRC Costs	\$17,594,316	\$866,425	\$18,460,741
TRC Ratio	0.33	0.16	0.32
Residual TRC Benefits	-\$11,843,191	-\$729,898	-\$12,573,089

Table 2-7: 2015 WA Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	\$5,436,224	\$124,809	\$5,561,033
Electric Avoided Costs	\$314,901	\$3,256	\$318,157
PAC Benefits	\$5,751,125	\$128,065	\$5,879,190
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Incentive Costs	\$2,710,513	\$747,241	\$3,457,754
PAC Costs	\$2,902,768	\$810,077	\$3,712,845
PAC Ratio	1.98	0.16	1.58
Net PAC Benefits	\$2,848,357	-\$682,012	\$2,166,345



Table 2-8: 2015 WA Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Bill Reduction	\$11,135,348	\$274,953	\$11,410,301
Electric Bill Reduction	\$0	\$0	\$0
Non-Energy Benefits	\$250,036	\$8,462	\$258,497
Participant Benefits	\$11,385,384	\$283,415	\$11,668,798
Customer Costs	\$17,402,061	\$803,589	\$18,205,650
Incentive Received	-\$2,710,513	-\$747,241	-\$3,457,754
Participant Costs	\$14,691,548	\$56,348	\$14,747,896
Participant Ratio	0.77	5.03	0.79
Net Participant Benefits	-\$3,306,165	\$227,067	-\$3,079,098

Table 2-9: 2015 WA Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Avoided Cost Savings	\$5,436,224	\$124,809	\$5,561,033
Non-Participant Benefits	\$5,436,224	\$124,809	\$5,561,033
Gas Revenue Loss	\$11,135,348	\$274,953	\$11,410,301
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Customer Incentives	\$2,710,513	\$747,241	\$3,457,754
Non-Participant Costs	\$14,038,116	\$1,085,030	\$15,123,146
RIM Ratio	0.39	0.12	0.37
Net RIM Benefits	-\$8,601,892	-\$960,221	-\$9,562,113



2.3 Combined Fuel Cost Effectiveness Results

Table 2-10: 2015 WA Electric and Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$37,805,328	\$786,924	\$38,592,253
Natural Gas Avoided Costs	\$4,872,360	\$82,027	\$4,954,386
Non-Energy Benefits	\$423,806	\$322,226	\$746,032
TRC Benefits	\$43,101,494	\$1,191,177	\$44,292,671
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Customer Costs	\$32,957,666	\$1,713,050	\$34,670,716
TRC Costs	\$36,643,791	\$2,026,308	\$38,670,098
TRC Ratio	1.18	0.59	1.15
Residual TRC Benefits	\$6,457,703	-\$835,131	\$5,622,572

Table 2-11: 2015 WA Electric and Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$37,805,328	\$786,924	\$38,592,253
Natural Gas Avoided Costs	\$4,872,360	\$82,027	\$4,954,386
PAC Benefits	\$42,677,688	\$868,951	\$43,546,639
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Incentive Costs	\$8,005,921	\$1,656,702	\$9,662,623
PAC Costs	\$11,692,045	\$1,969,960	\$13,662,005
PAC Ratio	3.65	0.44	3.19
Net PAC Benefits	\$30,985,642	-\$1,101,009	\$29,884,634



Table 2-12: 2015 WA Electric and Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$46,714,330	\$1,137,686	\$47,852,016
Gas Bill Reduction	-\$8,409	\$0	-\$8,409
Non-Energy Benefits	\$673,842	\$322,226	\$996,068
Participant Benefits	\$58,515,111	\$1,734,865	\$60,249,976
Customer Costs	\$32,957,666	\$1,713,050	\$34,670,716
Incentive Received	-\$8,005,921	-\$1,656,702	-\$9,662,623
Participant Costs	\$24,951,745	\$56,348	\$25,008,094
Participant Ratio	2.35	30.79	2.41
Net Participant Benefits	\$33,563,365	\$1,678,517	\$35,241,882

Table 2-13: 2015 WA Electric and Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Avoided Cost Savings	\$42,926,650	\$908,477	\$43,835,128
Non-Participant Benefits	\$42,926,650	\$908,477	\$43,835,128
Revenue Loss	\$57,849,678	\$1,412,640	\$59,262,318
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Customer Incentives	\$8,005,921	\$1,656,702	\$9,662,623
Non-Participant Costs	\$69,541,723	\$3,382,599	\$72,924,322
RIM Ratio	0.62	0.27	0.60
Net RIM Benefits	-\$26,615,073	-\$2,474,122	-\$29,089,195



3 Washington I-937 Acquisition of Conservation

In December 2013, the Commission approved the Company’s ten year Achievable Potential and Biennial Conservation Target Report (“Conservation Report”). The Company’s energy efficiency acquisition for the 2014-2015 Biennium is based upon a Conservation Potential Assessment (CPA) completed by a third-party consultant applying methodologies consistent with the Northwest Power and Conservation Council’s (NWPCC) Sixth Power Plan. Avista’s target as filed in its 2014-15 BCP is 68,204 MWh (Table 3-1). In 2014 and 2015, Avista acquired 70,959 MWh (verified gross savings) in Washington, or 104% percent of its BCP two-year end-use efficiency target (Table 3-2). 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 contribution.

Avista’s estimated annual electric energy savings associated with NEEA’s electric market transformation efforts are 30,397 MWh for 2014-2015.

Table 3-1 Avista Proposed 2014-2015 Biennial Conservation Target

Savings Category	Target 2014-2015 Savings (MWh)
End-Use Efficiency Measures (CPA)	67,137
Less NEEA	(11,130)
End-Use Efficiency Measures Subtotal	56,007
Plus Distribution Efficiency	2,061
Plus Generation Efficiency	163
Plus HER Savings	6,900
Final Order 05	3,248
Less Idaho Feeder Distribution Efficiency	(175)
2014-2015 Proposed Biennial Conservation Target	68,204



Table 3-2: 2014-2015 Washington Electric Energy Savings (Verified Gross)

Segment	kWh	Conversions	I-937 kWh Total
Residential	41,823,365	-7,176,499	34,646,866
Low Income	1,488,180	-1,130,217	357,963
Nonresidential	35,330,436	-1,138,519	34,191,917
Generation	249,000		249,000
Distribution	1,513,000		1,513,000
Total	80,403,981	-9,445,235	70,958,746

Table 3-3 outlines Avista’s 2014-2015 acquired electric energy savings based on the evaluation findings for all programs and measures, not utilizing locked UES values.

Table 3-3: 2014-2015 Washington Electric Energy Savings (Verified Gross No Locked UES Values)

Segment	kWh	Conversions	I-937 kWh Total
Residential	43,849,339	-4,483,925	39,365,414
Low Income	1,488,180	-1,130,217	357,963
Nonresidential	35,330,436	-1,138,519	34,191,917
Generation	249,000		249,000
Distribution	1,513,000		1,513,000
Total	82,429,955	-6,752,661	75,677,294



4 Programs

4.1 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 \$2.8 million in rebates were provided directly to Washington residential customers to offset the cost of implementing these energy efficiency measures. All programs within the residential portfolio contributed over 43,849 MWh and over 705,000 therms to the 2014-2015 Biennium energy savings.

4.1.1 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:



4.1.1.1 Residential Program Discontinuations

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

- The Appliance Recycling Program was discontinued in June 2015.

4.1.1.2 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.

4.1.2 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 \$13,530 in incentives. This appliance recycling program resulted in over 283 MWh in annual first-year savings in 2015 (see Table 4-1).

4.1.3 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). Natural gas customers are eligible for a rebate for the installation of a high efficiency furnace or boiler (\$250). Both electric and natural gas customers are also eligible for the installation of a smart thermostat. This program achieved over 678 MWh and 250,000 therms in first-year savings in 2015 and customers received a total of \$562,303 in incentives (see Table 4-2 and



Table 4-3).

4.1.4 Water Heat Program

The Water Heat Program offers a \$20 incentive for a high efficiency electric water heater (0.94 Energy Factor) or a high efficiency natural gas tank or tankless water heater, \$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 388 MWh and 20,479 therms in first-year savings in 2015 (see Table 4-4 and

Table 4-5). \$64,621 was paid in incentives for this program.

4.1.5 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 62 MWh savings and 8,195 therm savings in 2015 (see Table 4-6 and Table 4-7). A total of \$17,173 was paid out in incentives for this program.



4.1.6 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 3,927 MWh in first-year savings in 2015 (see Table 4-8), with customers receiving \$1,034,900 in paid incentives.

4.1.7 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 11,949 MWh in annual first-year savings during 2015 (see

Table 4-9). The Simple Steps showerhead savings are tallied under Avista's Water Heat program. The Company contributed over \$584,171 in incentives toward this buydown effort.

4.1.8 Shell

The primary measures included in the Shell Program are wall, attic, and floor insulation and window replacements. In 2015, the Shell Program acquired 411 MWh and 64,497 therms in first-year energy savings (see Table 4-10 and Table 4-11).

4.1.9 Opower Home Energy Reports

Avista launched a Home Energy Reports program in June 2013, targeting 48,300 Washington and 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 4-12, 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 7,342 MWh (gross verified) in Washington over the 2014-2015 biennium (see Table 4-13).

4.1.10 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.

4.1.10.1 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.

4.1.10.2 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 4-1: 2015 WA 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	322	\$9,660	208,978	-	\$56,274	\$0	\$0	\$9,660	\$6,966
Freezer	129	\$3,870	74,046	-	\$23,096	\$0	\$0	\$3,870	\$2,859
Total	451	\$13,530	283,024	-	\$79,369	\$0	\$0	\$13,530	\$9,825

Table 4-2: 2015 WA 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 Electric To Air Source Heat Pump	60	\$54,483	144,795	-	\$151,648	\$0	\$0	\$339,285	\$18,773
E Smart Thermostat DIY	4	\$202	3,844	-	\$1,694	\$0	\$0	\$872	\$210
E Smart Thermostat Paid Install	20	\$2,018	19,220	-	\$8,470	\$0	\$0	\$9,312	\$1,048
E Variable Speed Motor	635	\$65,556	267,404	-	\$175,722	\$0	\$0	\$633,300	\$21,753
Total	719	\$122,259	435,263	-	\$337,534	\$0	\$0	\$982,770	\$41,784

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



Table 4-3: 2015 WA Natural Gas 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
G Natural Gas Boiler	13	\$3,083	-	1,525	\$0	\$9,947	\$0	\$106,542	\$11
G Natural Gas Furnace	1,650	\$419,480	243,357	239,831	\$134,458	\$1,564,372	\$0	\$1,027,611	\$1,764
G Smart Thermostat DIY	111	\$5,397	-	3,964	\$0	\$20,457	\$0	\$23,871	\$23
G Smart Thermostat Paid Install	137	\$13,169	-	4,903	\$0	\$25,302	\$0	\$48,131	\$29
Total	1,911	\$441,129	243,357	250,224	\$134,458	\$1,620,078	\$0	\$1,206,155	\$1,827

Table 4-4: 2015 WA 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 Showerheads	3,774	\$12,730	304,971	-	\$179,946	\$0	\$0	\$45,288	\$22,276
Simple Steps Clothes Washers	608	\$21,280	80,256	-	\$39,959	\$0	\$0	\$48,640	\$4,947
E Electric Water Heater	28	\$565	3,080	-	\$2,186	\$0	\$0	\$16,480	\$271
Total	4,410	\$34,575	388,307	-	\$222,091	\$0	\$0	\$110,408	\$27,493

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



Table 4-5: 2015 WA Natural Gas 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 Showerheads	3,774	\$11,969	-	10,409	\$0	\$44,587	\$0	\$45,288	\$50
G 40 Gallon Natural Gas Water Heater	12	\$228	-	124	\$0	\$567	\$0	\$11,755	\$1
G 50 Gallon Natural Gas Water Heater	178	\$3,415	-	1,914	\$0	\$8,733	\$0	\$161,289	\$10
G Tankless Water Heater	116	\$14,552	-	8,031	\$0	\$29,046	\$0	\$176,542	\$33
Total	4,080	\$30,163	-	20,479	\$0	\$82,933	\$0	\$394,874	\$94

Table 4-6: 2015 WA 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 Estar Home - Manuf, Furnace	7	\$5,650	61,900	-	\$83,104	\$0	\$1,154	\$21,000	\$10,288
Total	7	\$5,650	61,900	-	\$83,104	\$0	\$1,154	\$21,000	\$10,288



Table 4-7: 2015 WA ENERGY STAR Homes Natural Gas Program Summary³

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
G Energy Star Home - Natural Gas Only	18	\$11,573	-	8,195	\$0	\$72,510	\$0	\$54,000	\$82
Total	18	\$11,573	-	8,195	\$0	\$72,510	\$0	\$54,000	\$82

Table 4-8: 2015 WA 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 Fur & Wh	193	\$644,671	2,204,981	(142,640)	\$2,769,663	-\$1,029,960	\$0	\$879,263	\$342,859
E Electric To Natural Gas Wall Heater	3	\$3,935	32,081	(1,398)	\$22,773	-\$6,774	\$0	\$14,967	\$2,819
E Electric To Natural Gas Furnace	149	\$348,938	1,386,426	(75,153)	\$1,741,481	-\$542,655	\$0	\$615,189	\$215,579
E Electric To Natural Gas Water Heater	77	\$46,613	303,617	(16,594)	\$215,526	-\$80,406	\$0	\$131,257	\$26,680
Total	422	\$1,044,158	3,927,105	(235,784)	\$4,749,443	-\$1,659,794	\$0	\$1,640,676	\$587,937

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



Table 4-9: 2015 WA 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	84,695	\$257,157	2,154,338	-	\$1,507,515	\$0	\$0	\$1,097,450	\$186,616
Simple Steps CFL	441,526	\$321,354	9,751,648	-	\$4,323,229	\$0	\$0	\$1,203,508	\$535,176
Customer Outreach CFLs (Residential)	56	\$42	1,684	-	\$730	\$0	\$0	\$84	\$90
Customer Outreach LEDs (Residential)	1,750	\$10,845	40,864	-	\$28,595	\$0	\$0	\$21,497	\$3,540
Total	528,028	\$589,398	11,948,533	-	\$5,860,069	\$0	\$0	\$2,322,540	\$725,422



Table 4-10: 2015 WA Electric Shell Program Summary⁴

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	\$128	151	-	\$298	\$0	\$0	\$826	\$37
E Attic Insulation With Electric Heat	31	\$5,741	11,388	-	\$14,305	\$0	\$1,096	\$42,559	\$1,771
E Floor Insulation With Electric Heat	4	\$628	1,632	-	\$2,050	\$0	\$141	\$4,310	\$254
E Wall Insulation With Electric Heat	9	\$1,626	5,194	-	\$6,524	\$0	\$254	\$11,712	\$808
E Window Replc From Double Pane W Elec Heat	94	\$43,135	76,826	-	\$96,500	\$0	\$0	\$372,107	\$11,946
E Window Replc From Single Pane W Elec Heat	137	\$56,570	169,374	-	\$212,749	\$0	\$0	\$533,899	\$26,336
Total	276	\$107,827	264,564	-	\$332,426	\$0	\$1,492	\$965,412	\$41,151

Table 4-11: 2015 WA Natural Gas Shell Program Summary⁴

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
G Attic Insulation With Natural Gas Heat	156	\$26,697	357	4,835	\$0	\$49,275	\$0	\$159,086	\$56
G Floor Insulation With Natural Gas Heat	16	\$1,755	-	274	\$0	\$2,796	\$0	\$12,082	\$3
G Wall Insulation With Natural Gas Heat	38	\$7,201	-	805	\$0	\$8,200	\$0	\$27,995	\$9
G Window Replc With Natural Gas Heat	997	\$420,902	145,754	58,584	\$179,337	\$597,073	\$0	\$5,618,932	\$673
Total	1,207	\$456,555	146,111	64,497	\$179,337	\$657,345	\$0	\$5,818,093	\$741

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



Table 4-12 OPower Participation Summary

State	Program Target	Initial 2014 Participating Customers	Closed Accounts		Participating Customers 2015 Year-End
			2014	2015	
WA	48,300	42,487	4,784	3,249	34,454

Table 4-13: 2014-2015 WA 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	7,342,378	-	\$938,572	\$0	\$0	\$0	\$1,014,033



4.2 Low Income

The Company leverages the infrastructure of six Community Action Program (CAP) agencies to deliver energy efficiency programs for the Company's low income residential customers in the Washington service territory. CAP agencies have resources to income qualify, prioritize and treat clients homes based upon a number of characteristics. In addition to the Company's annual funding, the agencies have 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.

4.2.1 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.

4.2.2 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 4-14). The agencies are given discretion to spend their allotted funds on either electric or natural gas efficiency improvement based on the need of the clients. 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 4-14: 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 4-15.

Table 4-15: 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, Washington income-qualified homes installed over 7,061 individual measures, acquiring more than 829 MWh and 6,539 therms while expending more than \$2.1 million in Washington contracts. Refer to Table 4-16 and Table 4-17 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 Washington, Avista facilitated 18 workshops with 621 participants; two energy fairs that had 540 attendees; 16 mobile outreach events to 1,916 visitors; and 33 general outreach partnerships and events reaching 3,519 individuals for a total of 6,596 contacts with senior and low income individuals.

Table 4-16: WA 2015 Electric Low-Income Measures Summary⁵

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)	3,473	\$7,141	69,626	-	\$30,165	\$0	\$0	\$7,141	\$9,639
Customer Outreach Leds (Low Income)	2,632	\$43,770	54,970	-	\$38,465	\$0	\$0	\$43,770	\$12,292
E Energy Star Refrigerator	7	\$11,921	2,380	-	\$1,890	\$0	\$0	\$11,921	\$604
E To G Furnace Conversion	68	\$219,761	401,121	(4,918)	\$394,574	-\$35,513	\$102,000	\$219,761	\$126,087
E To G H2O Conversion	66	\$89,328	198,220	(1,697)	\$146,273	-\$7,270	\$33,000	\$89,328	\$46,742
E To Heat Pump Conversion	3	\$43,777	20,182	-	\$21,137	\$0	\$0	\$43,777	\$6,754
Health And Safety	61	\$156,634	-	-	\$0	\$0	\$148,005	\$156,634	\$0
E Air Infiltration	56	\$129,557	16,259	-	\$17,029	\$0	\$0	\$129,557	\$5,442
E Duct Sealing	11	\$32,178	8,774	-	\$9,189	\$0	\$0	\$32,178	\$2,936
E Energy Star Doors	13	\$34,083	2,006	-	\$4,552	\$0	\$21,205	\$34,083	\$1,455
E Energy Star Windows	5	\$2,504	18	-	\$40	\$0	\$9,554	\$2,504	\$13
E He Water Heater	2	\$72	87	-	\$51	\$0	\$0	\$72	\$16
E Ins - Attic	28	\$18,646	6,402	-	\$14,524	\$0	\$0	\$18,646	\$4,641
E Ins - Duct	4	\$1,341	674	-	\$650	\$0	\$0	\$1,341	\$208
E Ins - Floor	38	\$106,378	36,240	-	\$82,214	\$0	\$0	\$106,378	\$26,272
E Ins - Wall	13	\$12,370	10,101	-	\$22,915	\$0	\$0	\$12,370	\$7,323
Total	6,480	\$909,461	827,060	(6,615)	\$783,668	-\$42,783	\$313,764	\$909,461	\$250,422

*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.

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



Table 4-17: 2015 WA Natural Gas Low-Income Measures Summary⁶

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs*	Non-incentive Utility Costs
G Air Infiltration	131	\$146,748	-	3,075	\$0	\$20,061	\$0	\$125,014	\$10,100
Health And Safety	76	\$203,662	-	-	\$0	\$0	\$4,853	\$305,551	\$0
G He Furnace	1	\$333	-	81	\$0	\$527	\$698	\$284	\$265
G He Wh 50g	1	\$29	-	7	\$0	\$26	\$0	\$25	\$13
G Duct Sealing	12	\$5,396	-	543	\$0	\$3,544	\$0	\$4,597	\$1,784
G Energy Star Doors	50	\$54,998	-	463	\$0	\$4,986	\$1,125	\$46,852	\$2,510
G Energy Star Windows	44	\$82,753	2,031	579	\$3,254	\$6,240	\$1,786	\$70,498	\$3,141
G Ins - Attic	107	\$181,922	1	4,057	\$2	\$43,724	\$0	\$154,979	\$22,013
G Ins - Duct	5	\$2,647	-	245	\$0	\$1,472	\$0	\$2,255	\$741
G Ins - Floor	96	\$172,807	-	1,933	\$0	\$20,833	\$0	\$147,214	\$10,488
G Ins - Wall	58	\$99,607	-	2,171	\$0	\$23,398	\$0	\$84,855	\$11,780
Total	581	\$950,903	2,032	13,154	\$3,256	\$124,809	\$8,462	\$942,125	\$62,836

*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.

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



4.3 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, 921 prescriptive and site specific nonresidential projects were incented. Avista contributed almost \$5.0 million for energy efficiency upgrades in nonresidential applications. Nonresidential programs realized over 18,500 MWh and 544,800 therms in annual first-year energy savings. Additionally, the small business program that commenced in 2015 installed over 5,200 measures, paid over \$142,000 in direct installation incentives and realized just over 1,056 MWh and 21,000 therms. Table 4-18 through Table 4-23 provide detail on the electric, natural gas, and dual fuel nonresidential programs.

4.3.1 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.



4.3.1.1 Nonresidential Program New Offerings

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

4.3.1.2 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

4.3.1.3 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 **Error! Reference source not found.**



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**
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
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 4-18 through Table 4-23.

4.3.2 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.



4.3.3 Site Specific Path

Site specific is the most comprehensive offering of the nonresidential segment and brings in more than a third 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 HVAC, lighting and shell.

4.3.4 Small Business Program

The Small Business (SB) program is administered by SBW consulting and is a direct installation/audit program providing customer energy-efficiency opportunities by: (1) directly installing appropriate energy-saving measures at each target site, (2) conducting a brief on-site audit to identify customer opportunities and interest in existing Avista programs, and (3) providing materials and contact information so that customers are able to follow up with additional energy efficiency measures under existing programs. This program is only available to customers who receive electric service under Rate Schedule 11 in Washington and Idaho, and to customers who receive natural gas service under Rate Schedule 101 in Washington. Schedule 11 customers typically use less than 250,000 kWh per year.

Direct-install measures include:

Faucet aerators	Smart power strips
Showerheads	CoolerMisers
Pre-rinse spray valves	VendingMisers
Screw-in LED's	



Table 4-18: 2015 WA Electric Nonresidential Prescriptive Measures Summary⁷

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
PSC Lighting Exterior	195	\$436,590	2,106,142	-	\$1,227,086	\$0	\$66,662	\$1,009,753	\$74,997
PSC Lighting Interior	128	\$359,537	2,306,243	(42)	\$1,581,137	-\$168	\$100,096	\$760,833	\$96,636
PSC Com Water Heater	-	\$0	-	-	\$0	\$0	\$0	\$0	\$0
PSC Commercial Windows and Insul	12	\$2,298	15,047	-	\$12,729	\$0	\$0	\$73,380	\$778
PSC EnergySmart- Case Lighting	38	\$77,368	533,429	-	\$153,120	\$0	\$0	\$126,071	\$9,358
PSC EnergySmart- Industrial Proc	32	\$66,123	689,732	-	\$435,107	\$0	\$0	\$221,510	\$26,593
PSC Food Service Equipment	27	\$9,098	57,546	-	\$29,852	\$0	\$0	\$219,715	\$1,824
PSC Green Motors Rewind	1	\$1,218	7,961	-	\$3,368	\$0	\$0	\$11,318	\$206
PSC Motor Controls HVAC	10	\$65,160	427,680	-	\$269,078	\$0	\$0	\$95,741	\$16,445
PSC Standby Generator Block	-	\$0	-	-	\$0	\$0	\$0	\$0	\$0
Total	443	\$1,017,393	6,143,781	(42)	\$3,711,476	-\$168	\$166,758	\$2,518,321	\$226,837

⁷ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 4-19: 2015 WA Natural Gas Nonresidential Prescriptive Measures Summary⁸

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
PSC Com Water Heater	2	\$21	-	3	\$0	\$17	\$0	\$3,676	\$2
PSC Food Service Equipment	68	\$72,891	1,937	46,504	\$667	\$204,774	\$0	\$285,185	\$7,866
PSC Commercial HVAC	78	\$32,530	-	15,031	\$0	\$81,845	\$0	\$209,560	\$3,510
PSC Motor Controls HVAC	1	\$0	-	-	\$0	\$0	\$0	\$0	\$0
PSC Commercial Windows and Insul	54	\$22,860	-	20,376	\$0	\$132,401	\$0	\$299,971	\$2,467
Total	203	\$128,302	1,937	81,915	\$667	\$419,037	\$0	\$798,391	\$13,845

⁸ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 4-20: 2015 WA Electric Nonresidential Site Specific Measures Summary⁹

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
SS Compressed Air	3	\$83,442	598,599	-	\$1,133,661	\$0	\$0	\$187,058	\$69,287
SS HVAC Combined	23	\$541,659	3,841,100	-	\$4,657,194	\$0	\$253,161	\$1,726,889	\$284,637
SS Industrial Process	6	\$332,536	2,253,867	-	\$2,286,607	\$0	\$0	\$844,700	\$139,752
SS EnergySmart- Industrial Proce	12	\$26,247	788,517	-	\$1,685,381	\$0	\$0	\$66,643	\$103,007
SS EnergySmart- Case Lighting	2	\$6,307	44,447	-	\$77,735	\$0	\$0	\$17,721	\$4,751
SS Lighting Exterior	45	\$150,969	1,088,545	-	\$1,810,017	\$0	\$178	\$509,854	\$110,624
SS Lighting Interior	53	\$324,447	1,890,444	-	\$5,526,247	\$0	\$1,064	\$1,221,597	\$337,752
SS Motor Controls Industrial	1	\$2,635	21,344	-	\$13,712	\$0	\$0	\$4,042	\$838
SS Appliances	6	\$6,529	112,624	-	\$86,669	\$0	\$0	\$26,465	\$5,297
SS HVAC Cooling	4	\$102,659	624,190	-	\$895,506	\$0	\$0	\$280,422	\$54,731
SS HVAC Heating	3	\$22,224	264,394	-	\$1,454,654	\$0	\$0	\$307,746	\$88,905
SS Motors	3	\$27,762	309,920	-	\$292,865	\$0	\$0	\$65,547	\$17,899
SS Multifamily	4	\$561,367	406,822	(18,460)	\$187,531	-\$68,466	\$0	\$1,255,843	\$11,461
SS Shell	6	\$24,609	148,094	-	\$118,259	\$0	\$0	\$135,713	\$7,228
Total	171	\$2,213,393	12,392,907	(18,460)	\$20,226,036	-\$68,466	\$254,403	\$6,650,239	\$1,236,170

⁹ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 4-21: 2015 WA Gas Nonresidential Site Specific Measures Summary¹⁰

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
SS Appliances	13	\$1,858	-	678	\$0	\$3,468	\$0	\$11,307	\$200
SS HVAC Combined	40	\$1,365,487	-	368,794	\$0	\$2,008,056	\$253,161	\$7,505,189	\$147,348
SS HVAC Heating	23	\$162,354	-	77,199	\$0	\$295,858	\$0	\$1,088,996	\$17,519
SS Industrial Process	5	\$16,167	-	7,086	\$0	\$41,097	\$0	\$54,698	\$1,745
SS EnergySmart- Industrial Proce	3	\$13,257	-	5,645	\$0	\$30,737	\$0	\$72,623	\$1,431
SS EnergySmart- Case Lighting	1	\$4,753	-	957	\$0	\$4,939	\$0	\$13,379	\$513
SS Shell	19	\$50,685	-	21,069	\$0	\$130,613	\$0	\$356,125	\$5,469
Total	104	\$1,614,560	-	481,428	\$0	\$2,514,769	\$253,161	\$9,102,317	\$174,226

¹⁰ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 4-22: 2015 WA Electric Nonresidential Small Business Summary¹¹

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
SB Appliances	402	\$61,675	347,877	-	\$75,062	\$0	\$0	\$61,675	\$4,588
SB Lighting	340	\$12,782	238,400	-	\$147,251	\$0	\$0	\$12,782	\$9,000
SB Water Heat	1,612	\$39,578	470,182	-	\$184,349	\$0	\$0	\$39,578	\$11,267
Total	2,354	114,035	1,056,459	-	\$406,661	\$0	\$0	\$114,035	\$24,854

¹¹ All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



Table 4-23: 2015 WA Gas Nonresidential Small Business Measures Summary¹²

Measure	Project Count	Incentives	kWh Savings	Therms Savings	kWh Avoided Costs	Therms Avoided Cost	Non-Energy Benefits	Customer Incremental Costs	Non-Incentive Utility Costs
SS Appliances	2,851	\$28,230	-	21,043	\$0	\$69,552	\$0	\$28,230	\$1,441
Total	2,851	\$28,230	-	21,043	\$0	\$69,552	\$0	\$28,230	\$1,441

¹² All kWh and therm values reported in this table are gross, excluding the effect of applicable NTG ratios.



5 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.

6 Generation and Distribution Efficiency

6.1 Generation

Avista completed a facility wide LED lighting retrofit at its Noxon Hydro Electric Facility during the 2014 – 2015 biennium. The electrical system overall annual savings are 382 MWh of which 249 MWh are attributed to Washington.

6.2 Distribution

Avista acquired distribution savings from one Spokane Feeder Grid Modernization project that totaled 885 MWh in 2014.

During 2015, Avista's Grid Modernization Team completed a number of projects including two Washington feeders with annual savings of 628 MWh. The completion of the feeders is part of the continued Avista Distribution System Efficiencies Program started in 2009. The program targets distribution efficiency by reconductoring smaller conductors with higher resistances to lower resistance larger conductors, replacing old transformers with high no-load losses to newer more efficient transformers, reducing the lengths of secondary districts and VAR compensation.



7 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 Washington funding share is 70% of its total NEEA funding share (Idaho plus Washington). Table 7-1 shows Avista’s funder share over time.

Table 7-1 Avista’s Washington Funder Share

Timeframe	Funding Share
Current	4.03%
2010-2014	3.89%
Previous (pre 2010 investments)	2.77%

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 annual electricity energy savings are 3.47 aMW (30,397 MWh). This estimate is above the Northwest Power and Conservation Council’s 6th Power Plan baseline and a proxy baseline for 2015. To avoid double counting, the savings exclude an estimate of savings the Energy Trust of Oregon, Bonneville Power Administration and local utilities claim through their programs.

Table 7-2 Avista’s Preliminary 2014-2015 Savings Estimate (aMW)

	Biennial Savings (2014-2015)		
	Current	Target	Variance
Residential	2.36	2.75	(0.39)
Commercial	1.10	0.53	0.57
Industrial	0.02	0.03	(0.01)
Agriculture	0.00	0.00	(0.00)
TOTAL	3.47	3.31	0.17



8 Energy Efficiency Expenditures

During 2015, Avista incurred over \$16.1 million in costs for the operation of electric and natural gas energy efficiency programs in Washington, with \$12.0 million for electric energy efficiency and \$4.1 million for natural gas energy efficiency. Of this amount, \$1.4 million was contributed to the Northwest Energy Efficiency Alliance to fund regional market transformation ventures.

Sixty-one percent of expenditures were returned to ratepayers in the form of incentives or products (e.g. CFLs). During the 2015 calendar year, under \$670 thousand, or 4.1 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 8-1 and Table 8-2 provide a summary of energy efficiency expenditures by fuel type.

Table 8-1: Avista Electricity Energy Efficiency Expenditures (WA)* **

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	\$1,950,588	\$1,309,486	\$49	\$0	\$3,260,123
Low Income	\$1,182,513	\$26,073	\$0	\$0	\$1,208,586
Nonresidential	\$3,344,820	\$769,166	\$48,953	\$0	\$4,162,940
Regional	\$0	\$3,185	\$64,377	\$1,314,999	\$1,382,561
General	\$0	\$1,636,381	\$370,572	\$0	\$2,006,953
Total	\$6,477,921	\$3,744,291	\$483,951	\$1,314,999	\$12,021,163

*Audit corrections for 2013 and 2014 WSU reimbursements (credits) \$ 311,155.29 for the duct sealing program affected the residential incentives and residential implementation expenditures. Moving credits



from Washington electric to Washington gas resulted in an increase to electric and a decrease to gas expenditures and corrected the tariff balances for both tariffs.

** 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 8-2: Avista Natural Gas Energy Efficiency Expenditures (WA)*

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	\$939,420	(\$60,603)	\$0	\$0	\$878,818
Low Income	\$747,241	\$8,370	\$0	\$0	\$755,611
Nonresidential	\$1,742,862	\$189,512	\$437	\$0	\$1,932,810
Regional	\$0	\$0	\$0	\$118,551	\$118,551
General	\$0	\$257,100	\$184,885	\$0	\$441,985
Total	\$3,429,523	\$394,379	\$185,332	\$118,551	\$4,127,775

*Audit corrections for 2013 and 2014 WSU reimbursements (credits) \$311,155.29 for the duct sealing program affected the residential incentives and residential implementation expenditures. Moving credits from Washington electric to Washington gas resulted in an increase to electric and a decrease to gas expenditures and corrected the tariff balances for both tariffs.



9 Tariff Rider Balances

As of the start of 2015, the Washington electric and natural gas (aggregate) tariff rider balances were underfunded by \$2,968,565. During 2015, \$16.7 million in tariff rider revenue was collected to fund energy efficiency while \$13.7 million was expended to operate energy efficiency programs. The \$518 thousand under-collection of tariff rider funding resulted in a year-end balance of \$2.45 million underfunded balance.

Table 9-1 illustrates the 2015 tariff rider activity by fuel type.

Table 9-1 Tariff Rider Activity (2015)

	Electric	Natural Gas
Beginning Balance (Underfunded)	(\$1,978,497)	(\$990,068)
Energy Efficiency Funding	\$13,424,031	\$3,243,168
Net Funding of Operations	\$11,445,534	\$2,253,100
Energy Efficiency Expenditures	\$12,021,163	\$4,127,775
Ending Balances (Underfunded)	(\$575,628)	(\$1,874,675)



10 Actual to Business Plan Comparison

For 2015 operations, Avista exceeded budgeted electric energy efficiency expenditures by \$757 thousand, or six percent, and natural gas expenditures were exceeded by \$1.2 million, or thirty percent. 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 Washington electric programs. The Washington Natural Gas Portfolio was continued in 2015 under a gross Utility Cost Test (UCT) metric rather than the previously applied net TRC metric based on direction from the Utility Transportation Commission (UTC), which was a result of Natural Gas incentives were reduced for 2015 as a result of a dramatic decline in natural gas avoided costs.

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 10-1 provides detail on the budget to actual comparison of energy efficiency expenditures by fuel type.

Table 10-1 Business Plan to Actual Comparison¹³

	Electric	Natural Gas
Business Plan		
Incentives Budget	\$6,917,074	\$1,690,185
Non-incentives and Labor	\$4,346,836	\$1,224,095
Total Budgeted Expenditures	\$11,263,910	\$2,914,280
Actual 2015 Expenditures		
Incentives	\$6,477,921	\$3,429,523
Non-incentives and Labor	\$5,543,242	\$698,252
Total Actual Expenditures	\$12,021,163	\$4,127,775
Variance (Unfavorable)	(\$757,253)	(\$1,213,495)

¹³ Budget values are from 2015 Business Plan



11 Gross Verified Cost Effectiveness Results – Not Applying Locked UES’s

This section reports the gross verified cost-effectiveness results utilizing the evaluation findings for all programs and measures, and not utilizing the locked unit energy savings (UES) values. In summary, electric and natural gas gross TRC is 1.84 and 0.32, respectively. Electric and natural gas gross PAC test benefit-cost ratios are 3.67 and 1.58, respectively. Table 11-1 through Table 11-12 illustrate electric, natural gas, and combined fuel cost-effectiveness, respectively.

11.1 Electric Cost Effectiveness Results

Table 11-1: 2015 WA Electric Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$36,351,060	\$783,668	\$37,134,728
Natural Gas Avoided Costs	-\$563,864	-\$42,783	-\$606,647
Non-Energy Benefits	\$423,806	\$313,764	\$737,570
TRC Benefits	\$36,211,002	\$1,054,650	\$37,265,652
<hr/>			
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Customer Costs	\$15,555,605	\$909,461	\$16,465,066
TRC Costs	\$19,049,475	\$1,159,883	\$20,209,357
<hr/>			
TRC Ratio	1.90	0.91	1.84
<hr/>			
Residual* TRC Benefits	\$17,161,528	-\$105,233	\$17,056,295

*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 11-2: 2015 WA Electric Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$36,351,060	\$783,668	\$37,134,728
Natural Gas Avoided Costs	-\$563,864	-\$42,783	-\$606,647
PAC Benefits	\$35,787,196	\$740,886	\$36,528,082
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Incentive Costs	\$5,295,408	\$909,461	\$6,204,869
PAC Costs	\$8,789,277	\$1,159,883	\$9,949,160
PAC Ratio	4.07	0.64	3.67
Net PAC Benefits	\$26,997,919	-\$418,997	\$26,578,922

Table 11-3: 2015 WA Electric Participant Cost (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$45,308,378	\$1,137,686	\$46,446,064
Gas Bill Reduction	-\$8,409	\$0	-\$8,409
Non-Energy Benefits	\$423,806	\$313,764	\$737,570
Participant Benefits	\$45,723,775	\$1,451,450	\$47,175,225
Customer Costs	\$15,555,605	\$909,461	\$16,465,066
Incentive Received	-\$5,295,408	-\$909,461	-\$6,204,869
Participant Costs	\$10,260,197	\$0	\$10,260,197
Participant Ratio	4.46	N/A	4.60
Net Participant Benefits	\$35,463,578	\$1,451,450	\$36,915,028



Table 11-4: 2015 WA Electric Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	\$36,351,060	\$783,668	\$37,134,728
Non-Participant Benefits	\$36,351,060	\$783,668	\$37,134,728
Electric Revenue Loss	\$45,308,378	\$1,137,686	\$46,446,064
Non-Incentive Utility Costs	\$3,493,869	\$250,422	\$3,744,291
Customer Incentives	\$5,295,408	\$909,461	\$6,204,869
Non-Participant Costs	\$54,097,655	\$2,297,569	\$56,395,224
RIM Ratio	0.67	0.34	0.66
Net RIM Benefits	-\$17,746,595	-\$1,513,901	-\$19,260,496

11.2 Natural Gas Cost Effectiveness Results

Table 11-5: 2015 WA Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	\$5,436,224	\$124,809	\$5,561,033
Electric Avoided Costs	\$314,901	\$3,256	\$318,157
Non-Energy Benefits	\$0	\$8,462	\$8,462
TRC Benefits	\$5,751,125	\$136,527	\$5,887,652
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Customer Costs	\$17,402,061	\$803,589	\$18,205,650
TRC Costs	\$17,594,316	\$866,425	\$18,460,741
TRC Ratio	0.33	0.16	0.32
Residual TRC Benefits	-\$11,843,191	-\$729,898	-\$12,573,089



Table 11-6: 2015 WA Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	\$5,436,224	\$124,809	\$5,561,033
Electric Avoided Costs	\$314,901	\$3,256	\$318,157
PAC Benefits	\$5,751,125	\$128,065	\$5,879,190
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Incentive Costs	\$2,710,513	\$747,241	\$3,457,754
PAC Costs	\$2,902,768	\$810,077	\$3,712,845
PAC Ratio	1.98	0.16	1.58
Net PAC Benefits	\$2,848,357	-\$682,012	\$2,166,345

Table 11-7: 2015 WA Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Bill Reduction	\$11,135,348	\$274,953	\$11,410,301
Electric Bill Reduction	\$0	\$0	\$0
Non-Energy Benefits	\$250,036	\$8,462	\$258,497
Participant Benefits	\$11,385,384	\$283,415	\$11,668,798
Customer Costs	\$17,402,061	\$803,589	\$18,205,650
Incentive Received	-\$2,710,513	-\$747,241	-\$3,457,754
Participant Costs	\$14,691,548	\$56,348	\$14,747,896
Participant Ratio	0.77	5.03	0.79
Net Participant Benefits	-\$3,306,165	\$227,067	-\$3,079,098



Table 11-8: 2015 WA Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Avoided Cost Savings	\$5,436,224	\$124,809	\$5,561,033
Non-Participant Benefits	\$5,436,224	\$124,809	\$5,561,033
Gas Revenue Loss	\$11,135,348	\$274,953	\$11,410,301
Non-Incentive Utility Costs	\$192,255	\$62,836	\$255,091
Customer Incentives	\$2,710,513	\$747,241	\$3,457,754
Non-Participant Costs	\$14,038,116	\$1,085,030	\$15,123,146
RIM Ratio	0.39	0.12	0.37
Net RIM Benefits	-\$8,601,892	-\$960,221	-\$9,562,113

11.3 Combined Fuel Cost Effectiveness Results

Table 11-9: 2015 WA Electric and Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$36,665,961	\$786,924	\$37,452,886
Natural Gas Avoided Costs	\$4,872,360	\$82,027	\$4,954,386
Non-Energy Benefits	\$423,806	\$322,226	\$746,032
TRC Benefits	\$41,962,127	\$1,191,177	\$43,153,304
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Customer Costs	\$32,957,666	\$1,713,050	\$34,670,716
TRC Costs	\$36,643,791	\$2,026,308	\$38,670,098
TRC Ratio	1.15	0.59	1.12
Residual TRC Benefits	\$5,318,337	-\$835,131	\$4,483,205



Table 11-10: 2015 WA Electric and Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	\$36,665,961	\$786,924	\$37,452,886
Natural Gas Avoided Costs	\$4,872,360	\$82,027	\$4,954,386
PAC Benefits	\$41,538,321	\$868,951	\$42,407,272
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Incentive Costs	\$8,005,921	\$1,656,702	\$9,662,623
PAC Costs	\$11,692,045	\$1,969,960	\$13,662,005
PAC Ratio	3.55	0.44	3.10
Net PAC Benefits	\$29,846,276	-\$1,101,009	\$28,745,267

Table 11-11: 2015 WA Electric and Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	\$45,308,378	\$1,137,686	\$46,446,064
Gas Bill Reduction	-\$8,409	\$0	-\$8,409
Non-Energy Benefits	\$673,842	\$322,226	\$996,068
Participant Benefits	\$57,109,158	\$1,734,865	\$58,844,024
Customer Costs	\$32,957,666	\$1,713,050	\$34,670,716
Incentive Received	-\$8,005,921	-\$1,656,702	-\$9,662,623
Participant Costs	\$24,951,745	\$56,348	\$25,008,094
Participant Ratio	2.29	N/A	2.35
Net Participant Benefits	\$32,157,413	\$1,678,517	\$33,835,930



Table 11-12: 2015 WA Electric and Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Avoided Cost Savings	\$41,787,284	\$908,477	\$42,695,761
Non-Participant Benefits	\$41,787,284	\$908,477	\$42,695,761
Revenue Loss	\$56,443,726	\$1,412,640	\$57,856,365
Non-Incentive Utility Costs	\$3,686,124	\$313,258	\$3,999,382
Customer Incentives	\$8,005,921	\$1,656,702	\$9,662,623
Non-Participant Costs	\$68,135,771	\$3,382,599	\$71,518,370
RIM Ratio	0.61	0.27	0.60
Net RIM Benefits	-\$26,348,487	-\$2,474,122	-\$28,822,609



**Appendix A Avista I-937 Conditions Compliance Record
2014-2015**



Appendix B Washington 2014-2015 Electric Impact Evaluation Report



Appendix C Washington 2014-2015 Natural Gas Impact Evaluation Report



Appendix D 2014-2015 Process Evaluation Report

