Energy Efficiency

WASHINGTON 2014 ANNUAL CONSERVATION REPORT (ACR) & COST-EFFECTIVE ANALYSIS

MAY 29, 2015

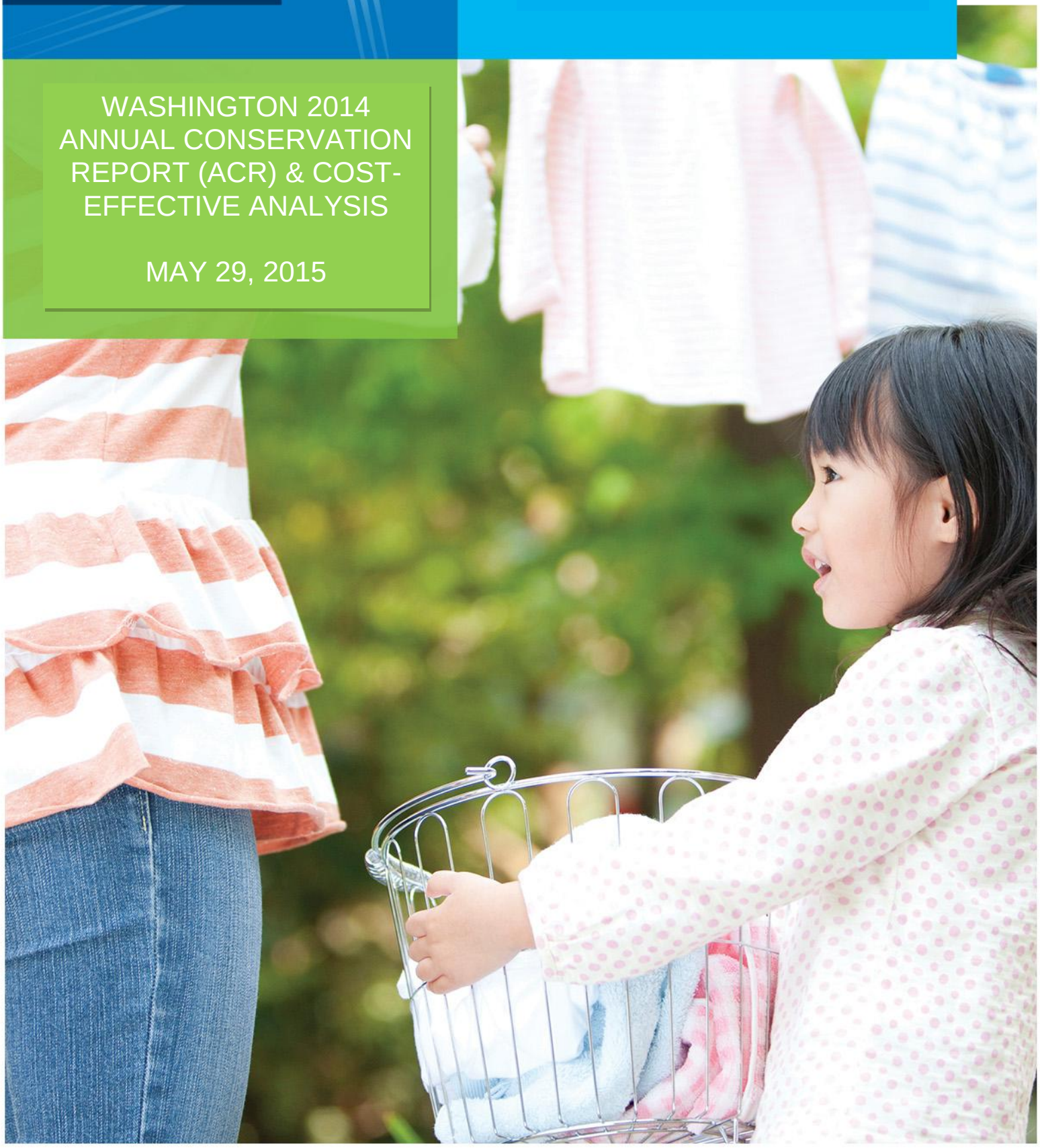

Table of Contents

1 Executive Summary

The 2014 Demand-Side Management (DSM) Annual Conservation Report (ACR) 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.

2014 is the first year of the third Biennial Conservation Plan (BCP) for Washington's Energy Independence Act (Initiative 937 or I-937). Avista's target as filed in its 2014-15 BCP is 68,204 MWh. In 2014, Avista acquired 40,896 MWh (unverified gross savings) in Washington, or 60 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 also contributed a significant amount to the overall savings contribution. Avista's natural gas portfolio delivered 529,763 therms (unverified gross savings) in first year annual savings. This achieved 85 percent of the Company's 2014 natural gas target of 637,042 therms as noted in the 2014 Business Plan. Primary drivers for the natural gas savings include residential prescriptive HVAC (primarily high efficiency natural gas furnaces), nonresidential site-specific HVAC, and residential shell measures.

A summary of acquired savings by sector is provided for both fuels in Tables ES-1 and ES-2 below.

Table ES-1: 2014 Washington Electric Energy Savings (Unverified Gross)

Segment	kWh	Conversions	I-937 kWh Total
Residential	25,397,486	-1,810,904	23,586,582
Low Income	400,247	-201,855	198,392
Nonresidential	16,226,327	0	16,226,327
Distribution	885,000	0	885,000
Total	42,909,060	-2,012,759	40,896,301

Table ES-2: 2014 Washington Natural Gas Savings (Unverified Gross)

Segment	Therms	Conversions	Therms Total
Residential	355,443	-79,021	276,422
Low Income	14,944	-6,634	8,310
Nonresidential	245,031	0	245,031
Total	615,418	-85,655	529,763

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, unverified 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 2014, the gross TRC benefit-to-cost ratios were 1.48 for electric and 0.42 for natural gas. The PAC test benefit-to-cost ratios were 3.14 for electric and 1.02 for natural gas.

Nexant, Inc., in partnership with Research Into Action, (the Nexant 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 2014 Annual Report are based on gross, unverified savings. The 2014 savings will be evaluated by the Nexant Team in 2015 and reported as the verified energy savings in the 2014-2015 biennium reporting.

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 2014 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 2-13 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 unverified savings. Energy savings reported by Avista's implementation team (both external and internal to Avista) were reviewed

by the Company's external evaluator, but savings were not evaluated for the 2014 programs. The external evaluator will verify the 2014 and 2015 portfolio energy savings and verified savings will be reported for the biennial period. The savings estimates represent gross energy acquisition except as noted in Section 5.2.2 of this report.

Avoided costs used for the cost-effectiveness valuation of the 2014 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 1.48 and 0.42, respectively. Electric and natural gas PAC test benefit-cost ratios are 3.14 and 1.02, respectively. Table 2-2 through Table 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: 2014 WA Electric Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$32,358,969	$379,484	$32,738,454
Natural Gas Avoided Costs	-$2,510,066	-$38,142	-$2,548,208
Non-Energy Benefits	$121,690	$589,431	$711,121
TRC Benefits	**$29,970,594**	**$930,773**	**$30,901,367**
Non-Incentive Utility Costs	$4,062,861	$230,638	$4,293,499
Customer Costs	$15,574,633	$944,880**	$16,519,513
TRC Costs	**$19,637,494**	**$1,175,518**	**$20,813,012**
TRC Ratio	**1.53**	**0.79**	**1.48**
Residual* TRC Benefits	**$10,333,100**	**-$244,745**	**$10,088,355**

*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: 2014 WA Electric Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$32,358,969	$379,484	$32,738,454
Natural Gas Avoided Costs	-$2,510,066	-$38,142	-$2,548,208
PAC Benefits	**$29,848,904**	**$341,342**	**$30,190,246**
Non-Incentive Utility Costs	$4,062,861	$230,638	$4,293,499
Incentive Costs	$4,124,011	$1,191,700	$5,315,711
PAC Costs	**$8,186,872**	**$1,422,338**	**$9,609,210**
PAC Ratio	**3.65**	**0.24**	**3.14**
Net PAC Benefits	**$21,662,031**	**-$1,080,995**	**$20,581,036**

Table 2-4: 2014 WA Electric Participant Cost (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	$43,157,474	$618,376	$43,775,850
Gas Bill Reduction	-$41,174	-$2,125	-$43,298
Non-Energy Benefits	$121,690	$589,431	$711,121
Participant Benefits	**$43,237,991**	**$1,205,682**	**$44,443,673**
Customer Costs	$15,574,633	$944,880	$16,519,513
Incentive Received	-$4,124,011	-$1,191,700	-$5,315,711
Participant Costs	**$11,450,622**	**-$246,820**	**$11,203,802**
Participant Ratio	**3.78**	**N/A**	**3.97**
Net Participant Benefits	**$31,787,369**	**$1,452,501**	**$33,239,871**

Table 2-5: 2014 WA Electric Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	$32,358,969	$379,484	$32,738,454
Non-Participant Benefits	**$32,358,969**	**$379,484**	**$32,738,454**
Electric Revenue Loss	$43,157,474	$618,376	$43,775,850
Non-Incentive Utility Costs	$4,062,861	$230,638	$4,293,499
Customer Incentives	$4,124,011	$1,191,700	$5,315,711
Non-Participant Costs	**$51,344,347**	**$2,040,713**	**$53,385,060**
RIM Ratio	**0.63**	**0.19**	**0.61**
Net RIM Benefits	**-$18,985,377**	**-$1,661,229**	**-$20,646,607**

2.2 Natural Gas Cost Effectiveness Results

Table 2-6: 2014 WA Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	$3,707,839	$133,002	$3,840,841
Electric Avoided Costs	$0	-$1,121	-$1,121
Non-Energy Benefits	$0	$221,747	$221,747
TRC Benefits	**$3,707,839**	**$353,628**	**$4,061,468**
Non-Incentive Utility Costs	$975,904	$55,030	$1,030,934
Customer Costs	$8,006,395	$725,692	$8,732,087
TRC Costs	**$8,982,299**	**$780,722**	**$9,763,021**
TRC Ratio	**0.41**	**0.45**	**0.42**
Residual TRC Benefits	**-$5,274,460**	**-$427,094**	**-$5,701,553**

Table 2-7: 2014 WA Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	$3,707,839	$133,002	$3,840,841
Electric Avoided Costs	$0	-$1,121	-$1,121
PAC Benefits	**$3,707,839**	**$131,881**	**$3,839,720**
Non-Incentive Utility Costs	$975,904	$55,030	$1,030,934
Incentive Costs	$1,988,964	$755,113	$2,744,077
PAC Costs	**$2,964,868**	**$810,143**	**$3,775,011**
PAC Ratio	**1.25**	**0.16**	**1.02**
Net PAC Benefits	**$742,971**	**-$678,262**	**$64,709**

Table 2-8: 2014 WA Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Bill Reduction	$8,224,051	$304,043	$8,528,095
Electric Bill Reduction	$0	-$62	-$62
Non-Energy Benefits	$0	$221,747	$221,747
Participant Benefits	**$8,224,051**	**$525,728**	**$8,749,780**
Customer Costs	$8,006,395	$725,692	$8,732,087
Incentive Received	-$1,988,964	-$755,113	-$2,744,077
Participant Costs	**$6,017,431**	**-$29,421**	**$5,988,010**
Participant Ratio	**1.37**	**N/A**	**1.46**
Net Participant Benefits	**$2,206,621**	**$555,149**	**$2,761,770**

Table 2-9: 2014 WA Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Avoided Cost Savings	$3,707,839	$133,002	$3,840,841
Non-Participant Benefits	**$3,707,839**	**$133,002**	**$3,840,841**
Gas Revenue Loss	$8,224,051	$304,043	$8,528,095
Non-Incentive Utility Costs	$975,904	$55,030	$1,030,934
Customer Incentives	$1,988,964	$755,113	$2,744,077
Non-Participant Costs	**$11,188,919**	**$1,114,186**	**$12,303,106**
RIM Ratio	**0.33**	**0.12**	**0.31**
Net RIM Benefits	**-$7,481,080**	**-$981,184**	**-$8,462,264**

2.3 Combined Fuel Cost Effectiveness Results

Table 2-10: 2014 WA Electric and Natural Gas Total Resource Cost (TRC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$32,358,969	$378,363	$32,737,333
Natural Gas Avoided Costs	$1,197,774	$94,860	$1,292,634
Non-Energy Benefits	$121,690	$811,178	$932,868
TRC Benefits	**$33,678,433**	**$1,284,401**	**$34,962,834**
Non-Incentive Utility Costs	$5,038,765	$285,668	$5,324,433
Customer Costs	$23,581,028	$1,670,573	$25,251,600
TRC Costs	**$28,619,793**	**$1,956,240**	**$30,576,033**
TRC Ratio	**1.18**	**0.66**	**1.14**
Residual TRC Benefits	**$5,058,640**	**-$671,839**	**$4,386,801**

Table 2-11: 2014 WA Electric and Natural Gas Program Administrator Cost (PAC) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$32,358,969	$378,363	$32,737,333
Natural Gas Avoided Costs	$1,197,774	$94,860	$1,292,634
PAC Benefits	**$33,556,743**	**$473,223**	**$34,029,966**
Non-Incentive Utility Costs	$5,038,765	$285,668	$5,324,433
Incentive Costs	$6,112,975	$1,946,813	$8,059,788
PAC Costs	**$11,151,740**	**$2,232,481**	**$13,384,221**
PAC Ratio	**3.01**	**0.21**	**2.54**
Net PAC Benefits	**$22,405,003**	**-$1,759,257**	**$20,645,745**

Table 2-12: 2014 WA Electric and Natural Gas Participant (PCT) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	$43,157,474	$618,314	$43,775,788
Gas Bill Reduction	-$41,174	-$2,187	-$43,360
Non-Energy Benefits	$121,690	$811,178	$932,868
Participant Benefits	**$51,462,042**	**$1,731,410**	**$53,193,453**
Customer Costs	$23,581,028	$1,670,573	$25,251,600
Incentive Received	-$6,112,975	-$1,946,813	-$8,059,788
Participant Costs	**$17,468,053**	**-$276,240**	**$17,191,812**
Participant Ratio	**2.95**	**N/A**	**3.09**
Net Participant Benefits	**$33,993,990**	**$2,007,651**	**$36,001,640**

Table 2-13: 2014 WA Electric and Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Avoided Cost Savings	$36,066,809	$512,486	$36,579,295
Non-Participant Benefits	**$36,066,809**	**$512,486**	**$36,579,295**
Revenue Loss	$51,381,526	$922,419	$52,303,945
Non-Incentive Utility Costs	$5,038,765	$285,668	$5,324,433
Customer Incentives	$6,112,975	$1,946,813	$8,059,788
Non-Participant Costs	**$62,533,266**	**$3,154,900**	**$65,688,166**
RIM Ratio	**0.58**	**0.16**	**0.56**
Net RIM Benefits	**-$26,466,457**	**-$2,642,413**	**-$29,108,871**

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. In 2014, Avista acquired 40,896 MWh (unverified gross savings) in Washington, or 60 percent of its BCP two-year end-use efficiency target. Higher savings in 2014 were primarily due to the ramp rate for behavioral savings where higher savings were anticipated in 2014 then 2015. Another driver was residential lighting that had a larger selection of eligible bulbs as well as higher throughput of bulbs purchased.

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**

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, a low-interest loan program, direct-install programs and a multi-faceted, multichannel outreach and customer engagement effort.

Over $2.5 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 23,586 MWh and over 276,422 therms in annual first-year 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, 2014, Avista continued to accept rebate applications and honored incentive amounts through March 31, 2014 for 2013 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 2014:

4.1.1.1 Residential Program New Offerings

The following measures were added to the residential program offering beginning January 2014:

- In October 2014 Avista launched a smart thermostat program that offered customers installing qualifying wifi-enabled models either a $50 rebate for do-it-yourself installation or $100 for contractor installed devices.
- High Efficiency Natural Gas Tankless Water Heater offered at $130 (0.82 EF or higher to qualify).
- Windows offered at $4.00 per square foot (replacement of single or double pane to U-factor of 0.30 or lower).

4.1.1.2 Residential Program Discontinuations

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

- High Efficiency Air Source Heat Pumps were discontinued in January 2014.
- The UCONS delivered Manufactured Home Duct Sealing Program (MHDS) was discontinued in November of 2014 as contractually planned. This program was a partnership with the Community Energy Efficiency Program funded by WSU-Energy.

4.1.1.3 Residential Program Adjustments

The following adjustments in program requirements and/or incentives levels were made to the residential programs beginning January 2014:

- High Efficiency Natural Gas Furnace/Boiler decreased from $400 to $250
- High Efficiency Electric Water Heater decreased from $30 to $20
- High Efficiency Natural Gas Water Heater decreased from $30 to $20
- Electric to Natural Gas Furnace Conversion increased from $750 to $900
- Electric to Natural Gas Water Heater Conversion increased from $200 to $300
- Attic Insulation decreased from $0.25 per square foot to $0.15 per square foot (Existing insulation R-value changes from R-12 or less to R-19 or less to be eligible)
- Wall Insulation decreased from $0.50 per square foot to $0.25 per square foot
- Floor Insulation decreased from $0.50 per square foot to $0.20 per square foot
- Electric or electric and natural gas Energy Star® Home, Stick Built from $650 to $1,000
- Electric or electric and natural gas Energy Star®/Eco-Rated Home, Manufactured from $650 to $800
- Electric to Natural Gas Furnace Conversion increased from $900 to $2,300 (increased on September 16, 2014 due to Fuel Efficiency Tariff Change)
- Electric to Natural Gas Water Heater Conversion increased from $300 to $600 (increased on September 16, 2014 due to Fuel Efficiency Tariff Change)

- Combination Electric to Natural Gas Space and Water Heat increased from $1,200 to $3,200 (increased on September 16, 2014 due to Fuel Efficiency Tariff Change)

- Coincident with the Business Plan filing in November of 2014, Avista changed the program requirements and incentive level for new construction multifamily that installed natural gas. Based on program experience and cost evaluation, the market transformation incentive was raised from a possible total incentive of up to $2,000 to up to $3,500. Program requirements were also modified to allow the incentive to go towards space heat, water heat or a combination of space and water heat.

The remaining sub-sections outline each residential program offered in 2014 and the unverified participation, incentives, energy savings, among other program achievements.

4.1.2 Residential Appliance Recycling

Avista has partnered with JACO, one of the nation's leading appliance recyclers, to provide third-party administration of the refrigerator/freezer appliance recycling program. Customers received $30 per appliance for participating which equated to $26,160 in incentives. This appliance recycling program resulted in over 383 MWh in annual first-year savings in 2014 (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). This program achieved over 751 MWh and 200,383 therms in first-year savings in 2014 and customers received a total of $647,323 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 (0.93 Energy Factor), and $7 buydown for Simple Steps, Smart Savings showerheads (reflected in point of purchase price). Savings from free showerheads installed via the Shell program (described below) are also tallied under Water Heat. The Water Heat Program achieved 646 MWh and 10,966 therms in first-year savings in 2014 (see Table 4-4 and Table 4-5). $91,399 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 133 MWh savings and 812 therm savings in 2014 (see Table 4-6 and Table 4-7). A total of $14,952 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 ($900 rebate); and/or converting their existing electric water heater to a natural gas water heater ($300 rebate). This program achieved 1,811 MWh in first-year savings in 2014 (see Table 4-8), with customers receiving $344,100 in paid incentives.

4.1.7 Residential Lighting

Avista continues to participate in the regional manufacturer buy-down of CFL twists, specialty bulbs, LED bulbs, and showerheads through Northwest Energy Efficiency Alliance (NEEA) and its contactor. The bulbs resulted in 10,108 MWh in annual first-year savings during 2014 (see Table 4-9). The showerhead savings are tallied under Avista's Water Heat program. The Company contributed over $485,970 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 as well as testing, repair and sealing of ductwork on Avista heated homes. The duct sealing service is available to manufactured homes and is implemented through the third-party contractor, UCONS, at no-cost to the customer. In 2014, the Shell Program acquired 3,434 MWh and 143,282 therms in first-year energy savings (see Table 4-10 and Table 4-11). This program was jointly funded by Washington State University's Extension Energy Program, which contributed $175,624 towards incentive costs and $303,795 towards implementation costs.

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.

Opower's reported energy savings results (fixed-effects model as reported by OPower) in Washington are 8,131 MWh (see Table 4-13).

4.1.10 Customer Outreach

Avista's DSM 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, online, print and attendance at local community events. In 2014, Avista's residential outreach included the repeat of popular broad reach media promotions "Efficiency Matters" and "Home Energy Advisor". A bill insert in the early spring offered to tips to manage energy use and a link to rebate offerings.

Washington and Idaho customers could tune into a radio segment called "House to Home" ; each quarter it featured an Avista energy engineer discussing energy efficiency information based on the season and related topics. Web searches for key words such as "gas conversion" or "rebates" resulted in a banner ad for Avista and a link to www.avistautilities.com. 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.

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: 2014 WA Residential Appliance Recycling Summary[1]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Refrigerator	618	$18,540	262,032	-	$71,330	$0	$0	$18,540	$18,372
Freezer	254	$7,620	121,412	-	$35,104	$0	$0	$7,620	$9,041
Total	**872**	**$26,160**	**383,444**	**-**	**$106,434**	**$0**	**$0**	**$26,160**	**$27,413**

Table 4-2: 2014 WA Electric HVAC Program Summary[1]

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	93	$83,700	463,017	-	$343,942	$0	$0	$573,395	$88,586
E Thermostat WA/ID DIY	1	$50	961	-	$559	$0	$0	$249	$144
E Thermostat WA/ID PD install	5	$500	4,805	-	$2,793	$0	$0	$1,764	$719
E Variable Speed Motor	623	$62,300	276,131	-	$169,745	$0	$0	$535,699	$43,720
E Air Source Heat Pump	18	$1,219	6,066	-	$4,506	$0	$0	$38,484	$1,161
Total	**740**	**$147,769**	**750,980**	**-**	**$521,544**	**$0**	**$0**	**$1,149,591**	**$134,330**

Table 4-3: 2014 WA Natural Gas HVAC Program Summary[1]

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	22	$5,500	-	2,094	$0	$12,830	$0	$177,359	$3,391
G Natural Gas Furnace	1,910	$493,056	-	197,633	$0	$1,210,884	$0	$1,241,500	$320,088
G STP WA DIY	8	$333	-	328	$0	$1,110	$0	$1,862	$293
G STP WA PD install	8	$666	-	328	$0	$1,110	$0	$3,750	$293
Total	**1,948**	**$499,554**	**-**	**200,383**	**$0**	**$1,225,933**	**$0**	**$1,424,470**	**$324,066**

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

Table 4-4: 2014 WA Electric Water Heat Program Summary[2]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Manufactured Home Showerhead	1,838	$26,196	379,130	-	$152,413	$0	$0	$95,588	$39,256
Simple Steps Showerheads	2,426	$11,497	262,509	-	$126,721	$0	$0	$58,224	$32,638
E Electric Water Heater	43	$860	4,766	-	$2,770	$0	$0	$29,689	$713
Total	**4,307**	**$38,553**	**646,405**	**-**	**$281,905**	**$0**	**$0**	**$183,502**	**$72,608**

Table 4-5: 2014 WA Natural Gas Water Heat Program Summary[2]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Manufactured Home Showerhead	1,838	$45,774	-	7,447	$0	$25,192	$0	$55,013	$6,659
G 40 Gallon Natural Gas Water Heater	21	$416	-	185	$0	$789	$0	$17,764	$209
G 50 Gallon Natural Gas Water Heater	136	$2,654	-	1,188	$0	$5,067	$0	$157,125	$1,339
G Tankless Water Heater	37	$4,002	-	2,146	$0	$7,259	$0	$81,756	$1,919
Total	**2,032**	**$52,846**	**-**	**10,966**	**$0**	**$38,307**	**$0**	**$311,658**	**$10,126**

Table 4-6: 2014 WA ENERGY STAR Homes Electric Program Summary[2]

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, WA	4	$2,708	18,936	-	$30,584	$0	$0	$12,000	$7,877
E Estar Home - Manuf, Furnace	16	$8,666	109,552	-	$107,001	$0	$2,638	$48,000	$27,559
E Estar Home - Manuf, Heat Pump	1	$542	4,390	-	$3,979	$0	$0	$3,000	$1,025
Total	**21**	**$11,916**	**132,878**	**-**	**$141,564**	**$0**	**$2,638**	**$63,000**	**$36,462**

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

Table 4-7: 2014 WA ENERGY STAR Homes Natural Gas Program Summary[3]

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	4	$3,037	-	812	$0	$6,860	$0	$12,000	$1,813
Total	**4**	**$3,037**	**-**	**812**	**$0**	**$6,860**	**$0**	**$12,000**	**$1,813**

Table 4-8: 2014 WA Electric Fuel Conversion Program Summary[3]

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	17	$54,400	258,281	(12,121)	$103,831	-$385,018	$0	$73,389	$26,743
E Electric To Natural Gas Furnace	109	$250,700	1,309,308	(52,860)	$526,353	-$1,679,074	$0	$434,634	$135,568
E Electric To Natural Gas Water Heater	65	$39,000	243,315	(14,040)	$97,815	-$445,974	$0	$113,232	$25,193
Total	**191**	**$344,100**	**1,810,904**	**(79,021)**	**$727,999**	**-$2,510,066**	**$0**	**$621,255**	**$187,504**

Table 4-9: 2014 WA Electric Residential Lighting Program Summary[3]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Manufactured Home CFL	1,906	$16,394	237,268	-	$68,602	$0	$0	$59,821	$17,669
Simple Steps LED	116,472	$244,238	2,444,105	-	$982,104	$0	$0	$1,432,044	$252,952
Simple Steps CFL	422,436	$224,579	7,422,561	-	$2,179,784	$0	$0	$1,396,877	$561,428
Customer Outreach CFLs (Residential)	188	$564	2,820	-	$815	$0	$0	$281	$210
Customer Outreach LEDs (Residential)	65	$195	845	-	$402	$0	$0	$798	$104
Total	**541,067**	**$485,970**	**10,107,599**	**-**	**$3,231,707**	**$0**	**$0**	**$2,889,822**	**$833,362**

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

Table 4-10: 2014 WA Electric Shell Program Summary[4]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Manufactured Home Duct Sealing	1,867	$138,423	2,003,402	-	$805,384	$0	$0	$505,108	$207,436
E Attic Insulation With Electric Heat	46	$5,513	33,641	-	$30,494	$0	$1,626	$38,404	$7,854
E Floor Insulation With Electric Heat	12	$1,853	11,742	-	$10,644	$0	$424	$9,567	$2,741
E Wall Insulation With Electric Heat	19	$3,743	39,050	-	$35,397	$0	$537	$18,096	$9,117
E Window Replc From Double Pane W Elec Heat	144	$44,526	269,339	-	$244,145	$0	$0	$540,456	$62,882
E Window Replc From Single Pane W Elec Heat	137	$41,631	451,984	-	$409,705	$0	$0	$586,562	$105,524
Total	**2,225**	**$235,688**	**2,809,158**	**-**	**$1,535,769**	**$0**	**$2,587**	**$1,698,193**	**$395,555**

Table 4-11: 2014 WA Natural Gas Shell Program Summary[4]

Measure	Project Count	Incentives	kWh	Therms	kWh Avoided Costs	Therms Avoided Costs	Non-energy Benefits	Customer Incremental Costs	Non-incentive Utility Costs
Manufactured Home Duct Sealing	1,867	$267,409	-	43,505	$0	$147,169	$0	$321,384	$38,903
G Attic Insulation With Natural Gas Heat	164	$31,358	-	14,020	$0	$137,970	$0	$162,502	$36,471
G Floor Insulation With Natural Gas Heat	30	$4,406	-	2,230	$0	$21,945	$0	$19,423	$5,801
G Wall Insulation With Natural Gas Heat	72	$14,933	-	5,415	$0	$53,289	$0	$58,740	$14,086
G Window Replc With Natural Gas Heat	922	$346,431	624,797	78,112	$929,455	$768,699	$0	$4,254,488	$442,591
Total	**3,055**	**$664,537**	**624,797**	**143,282**	**$929,455**	**$1,129,073**	**$0**	**$4,816,537**	**$537,853**

[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 Participating Customers	Opt-outs		Closed Accounts		Participating Customers 2014 Year-End
			2013	2014	2013	2014	
WA	48,300	40,911	0.81%	0.89%	4,158	4,231	36,709

Table 4-13: 2014 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	0	$0	8,131,321	0	$1,021,237	$0	$0	$504,600	$504,600

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 2014, the Company continued to reimburse Community Action Agencies for 100% of the cost of installation for a select group of "Approved" energy efficiency measures.

New in 2014, the Company established a "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 2014 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: 2014 Low Income Program Approved Measure List

Electric Measures	Natural Gas Measures
• Air infiltration • Insulation (floor, ceiling, wall) • Duct sealing • ENERGY STAR doors • Electric to Natural Gas Conversion (Space and Water Heat) • ENERGY STAR Refrigerators • Variable speed Motor	• Insulation (Wall, Ceiling, and Floor) • Air infiltration • Duct sealing • ENERGY STAR doors • ENERGY STAR windows

As mentioned above, beginning in 2014 a "Rebate" list was established to allow 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. This measure list is outlined in Table 4-15.

Table 4-15: 2014 Low Income Program Rebate Measure List

Electric Measures	Natural Gas Measures
• 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	• Duct insulation • High efficiency furnace • High efficiency water heater

The six Washington agencies collectively received a total funding amount of $2 million dollars in 2014. 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 2014 program year, Washington income-qualified homes installed over 1,200 individual measures in 253 individual homes, acquiring more than 400 MWh and 14,944 therms while expending more than $1.9 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 LIRAP in Washington and Oregon and 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 includes bill payment options and assistance resources in senior and low income publications. General Outreach can also be accomplished by providing energy management information and resources at events (such as resource fairs) and through partnerships that reach our target populations.

In 2014, in Washington, Avista facilitated 15 workshops with 275 participants; two energy fairs that had 700 attendees; 17 mobile outreach events touching 2,979 visitors; and 27 general outreach partnerships and events reaching 3,577 individuals for a total of 7,531 senior and low income individual touches.

Table 4-16: WA 2014 Electric Low-Income Measures Summary[5]

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	3,681	$12,105	55,215	-	$15,964	$0	$1	$5,511	$9,703
Customer Outreach LEDs	236	$776	3,068	-	$1,461	$0	$2	$4,248	$888
E Energy Star Refrigerator	7	$5,338	5,596	-	$4,157	$0	$0	$4,234	$2,526
E To G Furnace Conversion	52	$278,854	136,763	(4,088)	$123,970	-$27,946	$78,000	$221,207	$75,345
E To G H2o Conversion	50	$165,514	65,092	(2,546)	$33,341	-$10,196	$25,000	$131,297	$20,263
Health & Human Safety	184	$389,786	-	-	$0	$0	$446,441	$309,206	$0
E Air Infiltration	42	$60,095	22,975	-	$17,066	$0	$0	$47,672	$10,372
E Duct Sealing	236	$2,558	10,046	-	$7,462	$0	$0	$2,029	$4,535
E Energy Star Doors	21	$24,648	7,388	-	$12,575	$0	$34,254	$19,553	$7,643
E Energy Star Windows	3	$95	63	-	$107	$0	$5,733	$76	$65
E Ins - Ceil/Attic	25	$57,111	10,710	-	$18,229	$0	$0	$45,304	$11,079
E Ins - Duct	2	$70	85	-	$58	$0	$0	$56	$35
E Ins - Floor	41	$162,723	73,406	-	$124,941	$0	$0	$129,084	$75,935
E Ins - Wall	5	$7,071	5,112	-	$8,701	$0	$0	$5,609	$5,288
Total	**4,585**	**$1,166,744**	**395,519**	**(6,634)**	**$368,032**	**-$38,142**	**$589,431**	**$925,084**	**$223,677**

*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: 2014 WA Natural Gas Low-Income Measures Summary[6]

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	$150,421	1,676	2,897	$926	$17,750	$0	$144,561	$7,344
G He Furnace	21	$6,424	(3,717)	1,680	-$2,054	$10,293	$14,651	$6,174	$4,259
G Duct Sealing	12	$4,701	49	750	$36	$4,595	$0	$4,516	$1,923
G Energy Star Doors	65	$60,852	-	498	$0	$5,210	$73,147	$58,481	$2,156
G Energy Star Windows	75	$145,389	6,707	1,338	$11,416	$13,999	$133,950	$135,539	$12,730
G Ins - Ceil/Attic	113	$176,291	-	2,787	$0	$29,160	$0	$169,423	$12,065
G Ins - Duct	4	$174	13	53	$7	$298	$0	$167	$123
G Ins - Floor	110	$166,660	-	3,319	$0	$34,726	$0	$160,166	$14,368
G Ins - Wall	48	$69,156	-	1,622	$0	$16,971	$0	$66,462	$7,022
Total	**579**	**$780,069**	**4,728**	**14,944**	**$10,331**	**$133,002**	**$221,747**	**$745,489**	**$61,990**

*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 2014, 796 prescriptive and site specific nonresidential projects were incented. Avista contributed over $3.6 million for energy efficiency upgrades in nonresidential applications. Nonresidential programs contributed over 16,200 MWh and 245,000 therms in annual first-year energy savings. Table 4-20 and Table 4-21 provide detail on the electric, natural gas, and dual fuel nonresidential programs.

4.3.1 Program Changes

Program changes made at the beginning of 2014 to the nonresidential programs include the addition of new program offerings, discontinued programs 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, 2014 and Avista accepted rebate applications through March 31, 2014 for 2013 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 2014.

4.3.1.1 Nonresidential Program New Offerings

In 2014, Avista offered several new pilot programs as described in the Business Plan. The timing of projects for these pilot programs is identified as follows:

- AirGuardian Pilot:
  - Identification of pilot sites occurred in November 2014
  - Completion of device installations at pilot sites occurred in December 2014
  - Completion of data collection (pre- and post- device operation) in January 2015

        - Final report submitted to Avista in February 2015
- Cascade Energy Pilot:
    - The contract with the third-party implementer for this pilot was signed in February 2014 and all scoping reports were done that summer. No contracts have been signed for Phase 2. Two customers are interested in going forward. One has operational constraints due to the type of manufacturing processes and security where they are still considering their option to proceed. A second company is also still evaluating timing of the investment and operational considerations.
- Fleet Heat Pilot:
    - The goal of this pilot is to determine if there are cost-effective savings without operational issues by adding a temperature device to turn engine block heaters on and off as appropriate during the winter season. Anecdotally the fleet approach is often to begin using engine block heaters around the end of October until the end of April due to potential cold temperatures. Avista delivered the cords to a local school district in November 2014 and a local packaged food delivery company and local freight company shortly after.

4.3.1.2 Nonresidential Program Discontinuations

The following nonresidential programs and/or measures were discontinued beginning January 2014:

- Nonresidential Hot Water Heater Program
- Standby Generator Block Heater Program
- From the Nonresidential Windows and Insulation Program new and retrofit windows were discontinued.
- From the Nonresidential Food Service Equipment Program hot food holding carts were 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 2014:

- Nonresidential HVAC VFD Program- all applications were changed to $130 per HP
- Nonresidential Clothes Washers were increased from $75 to $100 per unit.
- Nonresidential Lighting Interior and Exterior Incentives Program Announcement: Avista offers a variety of prescriptive incentives for Non-T12 Lighting Retrofits. In 2014, Avista has expanded the interior and exterior incentive options which are now available on two separate Prescriptive Commercial Lighting Incentive Agreement Forms. Please note the

lighting program changes listed in Table 4-18.

Table 4-18: Nonresidential Lighting Interior and Exterior Changes

Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive	Notes
Deletion	1000 watt HID	400–575 watt Digital HID fixture	$400	$0	Exterior
Deletion	1000 watt HID	400-470 watt LED fixture	$475	$0	Exterior
Deletion	750 watt HID	320-400 watt Digital HID fixture	$300	$0	Exterior
Deletion	750 watt HID	210-240 watt LED fixture	$350	$0	Exterior
Increased Incentive	400 watt HID	250 watt Digital HID fixture	$150	$260	Exterior
Modified Eligibility	400 watt HID	125-175 watt LED fixture	$275	$255	Exterior
Addition	320 watt HID	125-160 watt LED fixture	$0	$180	Exterior
Modified Eligibility	250 watt HID	85-140 watt LED fixture	$175-200	$145	Exterior
Deletion	175 watt HID	40 watt Induction Fluorescent fixture	$150	$0	Exterior
Modified Eligibility	175 watt HID	35-85 watt LED fixture	$175	$135	Exterior
Modified Eligibility	150 watt HID	35-50 watt LED fixture	$175	$130	Exterior
Modified Eligibility	90-100 watt HID	25-50 watt LED fixture	$100	$75	Exterior
Modified Eligibility	70-90 watt HID	15-35 watt LED fixture	$75	$55	Exterior
Decreased Incentive	400 watt HID	4 lamp T5 fixture	$110	$105	Interior
Deletion	400 watt HID	6 lamp High Performance T8	$140	$0	Interior
Decreased Incentive	250 watt HID	4 lamp High Performance T8 or 2 lamp T5 fixture	$55	$50	Interior
Varied Incentive	Interior HID	T5 or High Performance T8 with occupancy sensor	$35-45	$30-40	Interior
Modified Eligibility	Over: 150 watt incandescent	2 lamp High Performance T8	$40	$40	Interior

Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive	Notes
Modified Eligibility	40 watt incandescent	6-10 watt LED lamp	N/A	$6	Interior
Modified Eligibility	60 watt incandescent	9-13 watt LED lamp	N/A	$8	Interior
Modified Eligibility	75-100 watt incandescent	12-20 watt LED lamp	N/A	$10	Interior
Addition	20 watt MR16	2-4 watt MR16 LED lamp	N/A	$5	Interior
Addition	35 watt MR16	4-6 watt MR16 LED lamp	N/A	$6	Interior
Addition	50 watt MR16	6-9 watt LED* lamp	N/A	$10	Interior

- Commercial Lighting Canopy LED and LED Sign Incentives Program Announcement: Avista increased the incentives for canopy LED lighting retrofits and added the LED Sign Lighting Program in the summer of 2014. The increased incentive amounts for canopy lighting were added on the Exterior Prescriptive Commercial Lighting Incentive Agreement Form. In order to qualify for this rebate, customers must meet the requirements of replacing all the canopy fixtures; and replacing at least 4 or more canopy LED lights which excludes LED wall packs, soffit fixtures and pole lights. The canopy LEDs must be on one of the approved LED fixture lists. In addition, the new LED Sign Lighting program has its own separate form and will state specific requirements in regards to LED sign lighting qualifications. Existing signs must be T12 fluorescent lighting and operate for at least 11.5 hours per day or 4,288 hours annually. Please note the Program changes in Table 4-19. New measures or increased incentives took effect July 1, 2014.

Table 4-19: Nonresidential Lighting Canopy LED and LED Sign Changes

Program Change	Existing Light	Retrofit Light	Old Incentive	New Incentive**	Notes
Increased Incentive	400 watt HID	122-175 watt LED Canopy fixture	$255	$325	Exterior
Increased Incentive	320 watt HID	122-160 watt LED Canopy fixture	$180	$250	Exterior
Addition	T12 Sign	Exterior LED Sign Lighting	Site Specific	$17 per sq ft	Signs only

The remaining sub-sections outline the nonresidential programs offered in 2014 and the unverified participation, incentives, energy savings, etc for each measure offered in the programs.

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.

Table 4-20: 2014 WA Electric Nonresidential Prescriptive Measures Summary[7]

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	210	$519,936	1,790,477	-	$875,975	$0	$31,460	$788,639	$59,936
PSC Lighting Interior	156	$273,401	2,130,153	-	$1,223,053	$0	$85,005	$554,836	$83,683
PSC Com Water Heater	2	$47	138	-	$71	$0	$0	$186	$5
PSC Commercial Windows and Insul	37	$141,325	466,468	-	$376,156	$0	$0	$541,192	$25,737
PSC EnergySmart- Case Lighting	49	$163,597	753,714	-	$193,339	$0	$0	$176,226	$13,229
PSC EnergySmart- Industrial Proc	36	$55,761	496,105	-	$269,532	$0	$0	$237,888	$18,442
PSC Food Service Equipment	25	$7,810	106,825	-	$56,456	$0	$0	$83,648	$3,863
PSC Green Motors Rewind	4	$1,133	10,918	-	$4,389	$0	$0	$1,345	$300
PSC Motor Controls HVAC	8	$40,415	475,554	-	$292,336	$0	$0	$73,640	$20,002
PSC Standby Generator Block	4	$1,888	8,668	-	$5,329	$0	$0	$5,592	$365
Total	**531**	**$1,205,313**	**6,239,020**	**-**	**$3,296,636**	**$0**	**$116,465**	**$2,463,192**	**$225,562**

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

Table 4-21: 2014 WA Natural Gas Nonresidential Prescriptive Measures Summary[8]

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	1	$20	-	2	$0	$11	$0	$34	$3
PSC Food Service Equipment	21	$30,596	-	18,095	$0	$73,398	$0	$71,343	$19,164
PSC Commercial HVAC	44	$54,924	-	25,828	$0	$131,628	$0	$73,655	$34,368
PSC Motor Controls HVAC	1	$4,954	-	3,123	$0	$15,916	$0	$10,022	$4,156
PSC Commercial Windows and Insul	42	$53,529	-	18,106	$0	$119,678	$0	$154,369	$31,248
Total	**109**	**$144,023**	**-**	**65,155**	**$0**	**$340,630**	**$0**	**$309,422**	**$88,940**

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

Table 4-22: 2014 WA Electric Nonresidential Site Specific Measures Summary[9]

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	-	$0	-	-	$0	$0	$0	$0	$0
SS HVAC Combined	23	$434,192	2,078,792	-	$3,412,299	$0	$0	$1,425,906	$233,476
SS Industrial Process	9	$486,460	2,928,361	-	$5,501,180	$0	$0	$2,358,480	$376,401
SS Lighting Exterior	28	$128,837	744,480	-	$738,868	$0	$0	$243,054	$50,555
SS Lighting Interior	41	$499,716	3,545,345	-	$7,716,940	$0	$0	$862,433	$528,007
SS Motor Controls Industrial	-	$0	-	-	$0	$0	$0	$0	$0
SS Appliances	10	$48,900	506,299	-	$2,986,362	$0	$0	$150,875	$204,332
SS HVAC Cooling	1	$3,998	40,243	-	$24,738	$0	$0	$5,489	$1,693
SS HVAC Heating	1	$21,196	106,672	-	$65,574	$0	$0	$32,013	$4,487
SS Motors	1	$4,576	30,711	-	$114,000	$0	$0	$8,805	$7,800
SS Shell	1	$668	6,406	-	$4,758	$0	$0	$2,071	$326
Total	**115**	**$1,628,543**	**9,987,307**	**-**	**$20,564,719**	**$0**	**$0**	**$5,089,125**	**$1,407,075**

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

Table 4-23: 2014 WA Gas Nonresidential Site Specific Measures Summary[10]

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	11	$49,033	-	24,865	$0	$93,876	$0	$99,556	$24,511
SS HVAC Combined	18	$452,763	-	107,351	$0	$602,340	$0	$1,483,229	$157,273
SS HVAC Heating	6	$58,149	-	20,815	$0	$106,081	$0	$226,501	$27,698
SS Industrial Process	1	$16,500	-	6,894	$0	$35,134	$0	$41,701	$9,174
SS Shell	5	$48,522	-	19,950	$0	$129,605	$0	$167,511	$33,840
Total	**41**	**$624,967**	**-**	**179,876**	**$0**	**$967,037**	**$0**	**$2,018,499**	**$252,497**

[10] 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)

The Nexant Team was retained to provide impact and process evaluations for the 2014-2015 electric and natural gas programs.

The following sections outline the major recommendations from the impact and process evaluation reports completed for the 2012-2013 portfolio of programs and notes what changes were made to the 2014-2015 Avista programs as a result of these evaluations.

5.1 Process Evaluation Summary

Recommendations from Avista's 2012-2013 process evaluation[11] report and subsequent implementation actions taken by Avista are summarized below.

5.1.1 Residential Sector

5.1.1.1 Program Participation

Conclusion: Avista's implementation of new and continued support for existing third-party implemented programs such as Simple Steps, Smart Savings and Residential Behavior effectively captures energy savings in the residential market segments.

Recommendation: Continue exploring new measures, program designs, and delivery mechanisms that leverage the national expertise of experienced third-party implementation firms. Possible programs may include additional partnership with ENERGY STAR in the form of the Home Performance with ENERGY STAR program.

> ***Status:*** In 2014 the Company offered Energy Star rebates through NEEA as the implementer, and distinguished between an Energy Star stick build home and a manufactured home.

Conclusion: Avista's continued investment in pilot programs provides a low-risk way test the effectiveness of new measure offerings, delivery channels, and implementation partners.

Recommendation: Continue testing new program designs and measure offerings through the use of pilots—even if secondary sources of funding or local partners are not available.

[11] Avista 2012-2013 Process Evaluation Report, The Cadmus Group, Inc., May 15, 2014.

Status: Avista initiated 3 pilot programs in 2014, a pilot program for reducing losses in compressed air systems called Air Guardian, a pilot program to test the efficacy of controlling block heaters on vehicles to reduce losses, and a pilot program to perform strategic energy management (SEM) in our industrial customers. The Company has yet to get an industrial customer to sign up for the second phase of the SEM initiative, but should have some preliminary results from the other two pilots by August of 2015.

.

Conclusion: While still early, evaluation findings indicate the Residential Behavior program is an effective way to capture savings in the residential market and Opower is a strong partner for program implementation.

Recommendation: If determined to be cost-effective, consider expanding the Residential Behavior program (for example, lowering the energy consumption threshold for participation and implementing measures to track the methods these customers use to save energy). Given that Avista has already included all cost-effective customers in their target population for this program, future opportunities for expansion may be limited.

Status: The Company will consider expansion of the OPower Residential Behavior program pending 2014-2015 cost effectiveness results. Avista will take into consideration the cost effectiveness of the program over the full program life.

5.1.1.2 Program Design

Conclusion: Inconsistencies continue to exist in measure and program naming and organization across program planning, tracking and reporting activities which result in less transparency in program operations and limit effective program evaluation.

Recommendation: As part of the transition to the new data tracking system, consider aligning program and measure names with offerings articulated in annual business plans and other planning materials.

Status: Avista's transition to a new tracking system has taken considerably longer to accomplish than was considered at the writing of this recommendation due to a prolonged initiation of the new customer information system. The present thought process, at the time of this report, is that Avista will enhance the historical savings database, SalesLogix, with tracking capabilities in the same database. As that change is made in the 2nd and 3rd quarter of 2015, the alignment of program, measure, planning materials and business planning will be a priority.

Conclusion: Reduction in Avista natural gas rebates and elimination of appliance rebates give

customers fewer ways to participate in Avista energy-efficiency rebate programs.

Recommendation: Consider ways to encourage repeat participation (such as marketing targeted at previous participants and online profiles that reduce application paperwork).

> ***Status:*** The Company has noted the response of its General Population Survey which indicated that approximately 10% of surveyed customers planned to replace HVAC equipment in the next couple years. Avista will continue to promote these measures to serve this demand.

Conclusion: Considering self-report customer freeridership scores and market baseline data from the RTF is an effective way to assess the appropriateness of measure offerings.

Recommendation: Continue use of customer freeridership and market assessments as a way to assess the appropriateness of measure offerings.

> ***Status:*** Avista is employing accepted Northwest Power and Conservation Council methodologies to the extent possible, to include the use of unit energy savings and freeridership values as identified by the RTF. When such values are not available, Avista will utilize the best estimate of what future third-party impact evaluation will reveal. Avista will continue to track freeridership values for measures and programs and will consider program changes and measure offerings in cases where market transformation has fully occurred.

5.1.1.3 Program Implementation

Conclusion: Avista prioritization of customer satisfaction has been very successful and overall participant experience is very positive across all rebate programs.

Recommendation: Continue Avista's commitment to customer satisfaction, but monitor increased staffing costs and impacts of the 90-day participation window on freeridership.

> ***Status:*** Avista agrees and continues to be committed to customer satisfaction. Staffing costs are continually tracked and efforts have been made to save where possible. Avista believes there is a long standing approach that balances customer's ability to participate along with implementation/operational considerations. Avista typically provides 90 days for program changes to allow for market communications and smooth transitions in and out of programs. Avista believes the 90 day participation window is an optimal, balanced approach considering customer equity and increasing documentation requirements.

5.1.1.4 Marketing and Outreach

Conclusion: Avista implements a strong general awareness campaign around energy-

efficiency, but some room exists in market segmentation and targeting specific customer groups.

Recommendation: Utilize survey results from this evaluation and other data collection activities to understand which audiences are more likely to participate in Avista programs.

> ***Status:*** Avista appreciates the intent of this recommendation, however, due to limitations in our customer care and billing system, the Company doesn't have a comprehensive customer relationship management tool that allows for segmentation and targeting and campaign management. The Company does believe that a continued broad reach approach engages new customers and further engages customers who have previously participated in energy efficiency programs demonstrated by repeat customers. The Company has found success in highlighting some programs but usually in the context of broader messaging that drives customers to our website to find offerings that are available to them. The Company has also had success in stretching our outreach efforts by building relationships with media partners such as local television stations and personalities and weekly newspapers that leverage and add endorsement.

5.1.2 Nonresidential Sector

5.1.2.1 Program Management and Implementation

Conclusion: Several parties over several years, internal and external to Avista, have observed the need for greater data quality assurance, in both documentation and input tracking. Quantitative inputs to the savings and rebate calculations have repercussions for tariff compliance, incentive payments, and savings realization rates.

Recommendation: Avista should continue efforts to improve program processes. The evaluation team believes unifying the organizational structure under central leadership is a step in the right direction and may help alleviate some previously documented issues with internal communications. In addition to the reorganization, it was recommended that Avista develop standardized processes within the DSM group, including clear delineation of roles and precise description and assignment of all processes and responsibilities for both residential and nonresidential programs. All affected parties should be included in formalizing and standardizing the DSM group's processes, roles, and responsibilities. Further, all parties must formally agree to clearly delineated responsibilities under the new organizational structure. While these activities need to be prescriptive and precise, we caution that the resulting structure should still allow some flexibility: increased clarity, transparency, and accountability should serve to enhance program delivery and customer satisfaction.

> ***Status:*** In 2014, the Company carefully reviewed the recommendations from external evaluators, Advisory Group and Commission Staff regarding the DSM Team

Organization. By April 2014, the Customer Solutions Team, including the Energy Efficiency Group was reorganized and is now reporting to one Leadership individual, a Sr. Director. In July, the Energy Efficiency Team was re-organized to report to one Sr. Manager to include Program Managers across all three states (WA/ID/OR), Energy Efficiency Engineering, and the Analyst Team. This reorganization has facilitated coordination and communication by the team members in delivering successful programs to customers. In addition, this new organizational structure included a thorough review of the Standard Operating Practices, EM&V Framework, Duel Fuel Incentive Calculators, and the Top Sheet Reviews. These process documents are expected to be complete in early 2015 and made available to the Advisory Group at the Spring 2015 meeting The team continues to be committed to developing, designing, and implementing prudent cost effective programs for the Company's customers.

5.1.2.2 Customer Feedback

Conclusion: Customers were highly satisfied with the program overall and with individual components. Customer satisfaction has increased since 2011, which had in turn increased from 2010.

Recommendation: Continue to prioritize and monitor program satisfaction.

> ***Status:*** Customer satisfaction and feedback will continue to be collected on programs through third party evaluation efforts conducted for 2014-2015 program years.

Conclusion: Customers appeared to be slightly less satisfied with the Washington Site-Specific program than with other programs. The largest source of lower satisfaction was the participants' reactions to program materials. Many customers said they received no program materials, and many participants learned about the program from their trade allies.

Recommendation: Consider taking action to strengthen the use of program materials. Consider providing trade allies with printed program information flyers or brochures to give to customers. Maintaining up-to-date information for trade allies is critical when they are the key party delivering the program's message and participation details.

> ***Status:*** In 2013 Avista implemented regular contractor outreach meetings, in person and through webinars which included distribution of program materials, resources and Avista contacts for immediate service. Avista also launched a web page dedicated to contractors with program announcements and tools for trade allies.

5.1.2.3 Market Feedback

Conclusion: According to commercial lighting contractor feedback, the nonresidential programs

are successful in driving incremental energy-efficient equipment sales, and the market has not yet transformed to make energy efficiency standard practice.

Recommendation: Continue to monitor market transformation indicators to measure programs' market impact over time.

> ***Status:*** Avista will continue monitoring signs of market transformation in the Nonresidential sector through efforts taken by the third party evaluator.

5.1.2.4 Marketing and Outreach

Conclusion: The characteristics of the evaluation survey respondents indicate that the office / professional services and local government sectors may be underserved by the programs relative to their incidence in the nonparticipant population. Further research is necessary to determine whether this is true.

Recommendation: Identify underserved industries, and seek opportunities to target outreach to specific underserved industries such as; investigate overall customer industry distribution, compare to participant industry distribution, and develop targeted outreach strategies for any underserved sectors.

> ***Status:*** This will be investigated as part of the 2014-2015 process evaluation.

5.1.2.5 Quality Assurance and Verification

Conclusion: Avista monitored its site-specific project review process and instituted refinements during the evaluation period in response to feedback from users. While this has led to improvements, including notably improved reliability of reported savings in 2012, quality assurance problems may persist.

Recommendation: Continue to monitor the effectiveness of the site-specific project review process and refine as needed. The third party evaluator recommends implementing the following to ensure continued improvement:

> ***Status:*** Avista implemented the following review model on April 24, 2015 that focuses on review guidelines based on a risk assessment:
>
> - Measures that have an incentive of $0 and an energy based simple payback of over 20 years require no report and no review, just a form letter to the customer.
> - Measures that have incentives between $1 and $2,000 will be processed by the reporting engineer without any other review.
> - Measures that have incentives between $2001 and $25,000 will be reviewed

before going to the customer by another qualified engineer.

- Measures over $25,000 will be reviewed by another qualified engineer with an additional technical management review prior to releasing to the customer.
- Measures over $40,000 will be reviewed by another qualified engineer, a technical manager, and an additional director review prior to releasing to the customer.
- Each review above will use the technical Top Sheet as a reviewing instrument with appropriate name and review level noted.
- A completed project must be re-submitted through the technical review process only if the incentive changes more than 10% when the savings or costs from the original report change. The report and DFIC will always be changed and recorded when savings or incremental costs change upon completion.

Recommendation: Conduct an external third-party review of Top Sheets, including reviewing a random sample of completed Top Sheets for completeness and accuracy. These were not reviewed as part of the 2012-2013 process evaluation, but should be included in the next process evaluation. Review should not only verify the presence of the Top Sheets, but also the quality and accuracy of the information provided.

Status: Several implementation improvements, either in-progress or recently completed, were reviewed and their impact upon 2014 program performance was discussed by the Avista implementation team. These improvements include:

- Revisions to the site-specific program implementation processes to improve clarity and promote the timely movement of projects through the pipeline.
- The establishment of three checklists (or "Top Sheets"), one prior to contracting and one prior to the payment of the incentive, in order to ensure consistent documentation and treatment of each project as it progresses through these processes towards completion.

5.2 Impact Evaluation Summary

5.2.1 Program Recommendations

5.2.1.1 Residential Electric Programs

The 2012-2013 WA Impact evaluation recommended the following changes to Avista's residential electric programs. Applicable updates have been included under the "status" sub bullet.

Recommendation: Consider updating its per-unit assumptions of recycled equipment to reflect

the 2012-2013 evaluation findings in order to ensure that planning estimates of program savings are in line with evaluated savings.

> ***Status:*** Per unit energy savings for refrigerators were updated from 482 to 424 kWh, and per unit energy savings for freezers were updated from 555 to 478.

Recommendation: If clothes washer rebates are reinstated, Avista should track them all within the electric program unless there is a large penetration of gas dryers.

> ***Status:*** Clothes washer rebates were not reinstated.

Recommendation: Increase the measure level detail captured on applications and include this detail in the tracking database. Specific additional information should include energy factors or model numbers, baseline information for insulation, and home square footage, particularly for the ENERGY STAR Homes program.

> ***Status:*** Energy factors and home square footage are being captured in Avista's tracking database. Model numbers are captured on rebate applications as well as baseline information for insulation which will likely be considered in 2016 after the new tracking database has been stabilized. Energy Star Homes is a regional (NEEA) program that has its own builder training, inspections, certifications and database. Avista requires customers meet and provide proof of their Energy Star Homes certification. Avista also collects square footage, primary space heating fuel and primary water heating fuel.

Recommendation: Consider tiered incentives by SEER rating as higher SEER systems generally require ECM fan motors to achieve certain SEER ratings.

> ***Status:*** The Air Source Heat Pump rebate is no longer offered due to not meeting cost effectiveness requirements.

Recommendation: Avista should consider completing a lighting logger study within its territory if Avista believes the results of the forthcoming RBSA study do not accurately represent usage in their territory.

> ***Status:*** A lighting logger study is being conducted by the Nexant Team as a part of the 2014-2015 independent third-party evaluation activities.

Recommendation: Avista should consider researching the percentage of Simple Steps, Smart Savings bulb purchase that are installed in commercial settings. This could increase the average installed hours of use and increase program savings.

> ***Status:*** This research is being conducted by the Nexant Team during the 2014-2015

evaluation period

Recommendation: Perform a billing analysis on ENERGY STAR homes using a non-participant comparison group once enough homes have participated under the new requirements to justify performing the work. This research could be used to demonstrate the achieved savings through energy efficiency construction practices.

> ***Status:*** If enough homes participate during the 2014-2015 program period that allow for a study population large enough to produce statistically significant results, this research will be conducted by the Nexant Team during the 2014-2015 evaluation period.

Recommendation: Consider researching the current variable speed motor market activity to determine if this measure should continue as a stand-alone rebate or be packaged with other equipment purchases.

> ***Status:*** This research is being conducted by the Nexant Team as part of the 2014-2015 evaluation.

Recommendation: Continue to promote efficiency programs in the Behavior Program energy reports, as the reports increased both the rate of efficiency program participation and savings.

> ***Status***: Avista will continue to promote efficiency programs bi-annually on the Behavior Program energy reports.

Recommendation: Avista should consider performing additional research about the peak-coincident demand savings from the behavior program.

> ***Status***: This will be considered for the 2014-2015 evaluation and largely depends on the data available and whether or not a study of peak-coincident demand savings is applicable for planning purposes.

5.2.1.2 Residential Natural Gas Programs

The 2012-2013 WA Impact evaluation recommended the following changes to Avista's residential natural gas programs. Applicable updates have been included under the "status" sub bullet.

Recommendation: If the clothes washer measure is reinstated, Avista should consider moving all rebates to the electric program, as the majority of savings will likely result from a reduction in consumed electricity from the dryer. Qualifying for the program should be based on the presence of an electric dryer in the home. Given the large percentage of savings achieved through reduced dryer energy, and because of the high likelihood that most participants have an electric dryer, this measure predominantly produces electric energy savings.

Status: Clothes washers were not reinstated because the measure did not meet cost-effectiveness requirements.

Recommendation: Avista should consider increasing the amount of data tracked as part of the Manufactured Homes Duct Sealing Program, including such fields as the Avista customer account number.

Status: In 2014, UCONS recorded the customer meter number and Avista verified and added the customer account number to the raw data.

Recommendation: Avista may consider performing a targeted billing analysis for weatherization participants who use both electricity and gas to heat their homes. Our current study analyzes homes based on the program they are tracked in. Customers who use multiple fuels to heat their home may be saving more energy than currently estimated.

Status: The Nexant Team will consider, based on the number of dual-fuel participants and availability of data, performing this analysis as part of the 2014-2015 portfolio evaluation.

Recommendation: High-efficiency gas furnaces continue to provide the largest portion of savings for the residential portfolio. The last billing analysis we performed was in 2011 on PY 2010 participants, so those results could be re-estimated in the next evaluation.

Status: High-efficiency gas furnaces will be evaluated in the 2014-2015 evaluation.

Recommendation: Once the gas heated homes participation in the Manufactured Homes Duct Sealing Program has reached sufficient size, consider conducting a billing analysis to estimate savings.

Status: Manufactured Homes Duct Sealing will be evaluated through a billing analysis as part of the 2014-2015 evaluation.

5.2.1.3 Low Income Programs

The 2012-2013 WA Impact evaluation recommended the following changes to Avista's low income programs. Applicable updates have been included under the "status" sub bullet.

Recommendation: Consider including a control/comparison group in future billing analyses.

Status: In the 2014-2015 evaluation, a billing analysis will be used to analyze energy impacts; a comparison group approach will be used as the preferred method if sufficient data is available.

Recommendation: Consider options for increasing the analysis sample size due to small program populations (such as combining Washington and Idaho program participants).

> ***Status:*** In the 2014-2015 evaluation, combination tactics are being utilized to increase the analysis sample size.

Recommendation: Obtain a full list of weatherization measures from agencies.

> ***Status:*** The list of weatherization measures from agencies is provided in Section 4.2 of this report.

Recommendation: Consider targeting high-use customers.

> ***Status:*** The Community Action Agencies have a priority screen that they utilize which includes high energy use customers. Additional data mining from Avista is not possible as the Utility does not have access to income data and as such does not presume that a high use customer would also be eligible for low income weatherization services. The high use customer data has been used in the past to target potential participants for the residential behavior program along with electric to natural gas conversion opportunities.

Recommendation: Track and compile additional data from agency audits.

> ***Status:*** Avista includes on the Agency billing invoice a space for type of home (e.g. stick built or mobile) age of home, square footage of home, heating fuel and whether or not air conditioning exists. Additional data points will be gathered as needed.

Recommendation: Consider performing quantitative, non-energy benefit analyses.

> ***Status:*** Avista currently quantifies two primary non-energy benefits for Low Income Programs. One is a dollar for dollar benefit related to health and human safety (H&HS) improvements. Savings are not currently claimed applicable to H&HS but these are improvements that protect the investment of and/or enable the energy efficiency improvements to occur. The other is the benefit equivalent to the cost of the standard efficient equipment benefit compared to the high efficiency equipment measure (e.g. furnaces, water heaters, refrigerators and broken windows). For some measures, like insulation, the incremental cost is the full cost as if the customer did not have to replace anything and could have just left the under-insulated space untreated. For the high efficiency improvements, Avista is making the assumption that the baseline equipment is at or close to end of life and, is therefore a replace upon burnout situation.

5.2.1.4 Nonresidential Electric Programs

The 2012-2013 WA Impact evaluation recommended the following changes to Avista's nonresidential electric programs. Applicable updates have been included under the "status" sub bullet.

Recommendation: Create a quality control system to double-check all projects with savings over 300,000 kWh.

> ***Status:*** Avista implemented the review model on April 24, 2015 as discussed in Section 5.2.1.5 above. Avista uses measure level evaluation because the number of measures in a project may change, but the incentives and risks on a per measure basis will stay consistent. Avista found the incentive levels that most closely matched the 300,000 kWh threshold to create the risk-based strategy below as outlined.

Recommendation: Consider working with participants to accelerate the process of claiming energy savings and paying the project incentive. Preferably this should happen within one year of measure installation, depending on Avista's requirements for post-installation data on the particular project.

> ***Status:*** Avista continually works with participants to accelerate the process of claiming energy savings and paying the project incentive. Balancing the level of rigor required to make sure savings claims are as accurate as possible, appropriate documentation is received and requirements for post installation data are achieved is part of our on-going active management of projects. Site specific projects that are not performance based are typically paid within weeks of invoice receipt and verification of installation. For performance based projects, the payment timeframe is determined by the ability to collect adequate performance data unique to the project parameters. Performance periods are typically within one year of installation.

Recommendation: Avista may want to consider tracking and reporting demand reduction to better understand measure load profiles and peak demand reduction opportunities.

> ***Status:*** Avista is working with their Power Supply department to find the value of demand reduction at different times for different measures. Presently the program operates only on commodity savings. Avista already calculates and reports demand reduction when it occurs both in custom and prescriptive measures and will continue this process.

Recommendation: Update prescriptive measure assumptions and sources on a regular basis.

> ***Status:*** Technical Reference Manual (TRM) updates, including prescriptive measure

assumptions, are being conducted as part of the 2014-2015 independent evaluation activities.

Recommendation: Streamline its file structure to enable reviewers to more easily identify the latest documentation.

> ***Status:*** All documentation pertaining to a project is now stored in one file for each project/opportunity. This includes; Energy Efficiency Report, DFIC, Top Sheets, Contract, Invoices, Installation/Verification report and copy of incentive check. A PDF file can easily be developed to upload to external FTP sites or it can be viewed by anyone with access to SalesLogix. Avista has changed the naming convention for projects to account for version control.

Recommendation: Continue to perform follow-up measure confirmation and/or site visits on a random sample of projects (at least 10%).

> ***Status:*** Avista continues to perform installation verifications on all Site Specific projects and 10% of all Prescriptive projects.

Recommendation: Consider flagging sites for additional scrutiny when the paid invoice does not include installation labor.

> ***Status:*** Avista will implement data collection concerning installation labor on the technical Top Sheet on May 11, 2015. While labor for some customers is a sunk cost and will not show up in the incremental costs, for those that must have it be a part of the incremental costs, it will be recorded and reviewed as part of the technical Top Sheet process.

Recommendation: Avista may consider adding a flag to the tracking database to automatically calculate the unit of energy savings per dollar (kWh/$ or therm/$) to provide a quick check to identify extreme outliers.

> ***Status:*** Avista added this metric to the lighting calculators in 2014 and this will be added to the other calculators as they are updated in 2015.

Recommendation: In the case of redundancy, Avista may want to consider incenting pump projects through the Site-Specific Program to more accurately characterize the equipment operating hours.

> ***Status:*** This issue has not been significant enough to change the prescriptive process for VFD's to site specific at this time.

Recommendation: Avista may want to adopt modeling design guidelines to set minimum

standards, such as The Energy Trust of Oregon guidelines.

> ***Status:*** Avista uses both eQUEST and Energy Plus for modeling and will design minimum standards for modeling design for contractors and Avista DSM engineers to use, drawing on the experience of Energy Trust and others in 2015.

5.2.1.5 Nonresidential Natural Gas Programs

The 2012-2013 WA Impact evaluation recommended the following changes to Avista's nonresidential natural gas programs. Applicable updates have been included under the "status" sub bullet.

Recommendation: Streamline the file structure to enable internal and external reviewers to more easily identify the latest documentation.

> ***Status:*** All documentation pertaining to a project is now stored in one file for each project/opportunity. This includes; Energy Efficiency Report, DFIC, Top Sheets, Contract, Invoices, Installation/Verification report and copy of incentive check. A PDF file can easily be developed to upload to external FTP sites or it can be viewed by anyone with access to SalesLogix. Avista has changed the naming convention for projects to account for version control.

Recommendation: Avista should continue to perform follow-up measure confirmation and/or site visits on a random sample of projects (at least 10%).

> ***Status:*** Avista continues to perform installation verification on all Site Specific projects and 10% of all Prescriptive projects.

Recommendation: Consider flagging sites for additional scrutiny where the paid invoice does not list installation labor.

> ***Status:*** Avista will implement data collection concerning installation labor on the technical Top Sheet on May 11, 2015.While labor for some customers is a sunk cost and will not show up in the incremental costs, for those that must have it be a part of the incremental costs, it will be recorded and reviewed as part of the technical topsheet process.

5.2.2 Impact Evaluation Measurement Designations

As a result of efforts and activities conducted for the 2012-2013 portfolio evaluation, the application of RTF unit energy savings values to measures offered through Avista's programs

was defined. The 2014-2015 portfolio evaluation will continue to apply RTF UES values for applicable measures.

Table 5-1 summarizes the evaluation and reporting methodology for gross and net energy

Program	Designation	Reporting Method
Residential		
Appliance Recycling	RTF	RTF UES with spillover
CFL Contingency	RTF	RTF methodology and inputs
ENERGY STAR Products	RTF	RTF UES with spillover
ENERGY STAR Homes	RTF	RTF UES with spillover
Geographic CFL Giveaway	RTF	RTF methodology and inputs
Heating and Cooling Efficiency	Gross	Billing Analysis
Manufactured Home Duct Sealing	Gross	Direct install measures, NTG assumed as 1.00
Residential Behavior	Net	Billing analysis results net due to control group
Simple Steps, Smart Savings	RTF	RTF methodology and inputs
Space and Water Conversions	Gross	Billing analysis
Weatherization and Shell	Gross	Billing analysis
Water Heating Efficiency	RTF	RTF UES with spillover
Low Income		
All Measures	Gross	NTG assumed as 1.00
Nonresidential		
All Measures	Gross	Consistent with CPA, NTG assumed as 1.00

Notes: Regional Technical Forum (RTF), Unit Energy Savings (UES), Conservation Potential Assessment (CPA), Net-to-gross (NTG)

savings values when RTF values are applicable and in instances where there is no RTF value to reference. The table presents the methodology applied for the 2012-2013 evaluation and this table will be reviewed and updated as applicable for the 2014-2015 evaluation. The Designation column represents the identified evaluation methodology summarized by:

- RTF: Acquisition savings based on a UES value provided by the RTF library, including consideration of the adjusted market baseline inherent in the analysis, or the acquisition as derived by the savings calculation methodology including appropriate factors and criteria.
- Gross: Acquisition savings without the application of a NTG factor, using a traditional approach of code minimum or current standard practice as the evaluation baseline.
- Net: Acquisition savings resulting from the application of an evaluated survey-based net-to-gross factor or as a fundamental net savings based on the applied analysis

method.

Table 5-1: 2012-2013 Impact Evaluation Methodology

Program	Designation	Reporting Method
Residential		
Appliance Recycling	RTF	RTF UES with spillover
CFL Contingency	RTF	RTF methodology and inputs
ENERGY STAR Products	RTF	RTF UES with spillover
ENERGY STAR Homes	RTF	RTF UES with spillover
Geographic CFL Giveaway	RTF	RTF methodology and inputs
Heating and Cooling Efficiency	Gross	Billing Analysis
Manufactured Home Duct Sealing	Gross	Direct install measures, NTG assumed as 1.00
Residential Behavior	Net	Billing analysis results net due to control group
Simple Steps, Smart Savings	RTF	RTF methodology and inputs
Space and Water Conversions	Gross	Billing analysis
Weatherization and Shell	Gross	Billing analysis
Water Heating Efficiency	RTF	RTF UES with spillover
Low Income		
All Measures	Gross	NTG assumed as 1.00
Nonresidential		
All Measures	Gross	Consistent with CPA, NTG assumed as 1.00

Notes: Regional Technical Forum (RTF), Unit Energy Savings (UES), Conservation Potential Assessment (CPA), Net-to-gross (NTG)

The application of freeridership and spillover are also important considerations. Gross savings do not have freeridership or spillover factors applied. Net savings include both freeridership and spillover considerations. The RTF adjusted market baseline definition of savings accounts for freeridership but not spillover, allowing for identified spillover savings to be applied to the appropriate results when based on the RTF UES.

6 Distribution Efficiency

Avista acquired distribution savings from one Spokane Feeder Grid Modernization project that totaled 885 MWh in 2014. There were no Conservation Voltage Reduction projects completed in 2014.

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 is currently in its fourth funding cycle (2010-2014). This fourth five-year period saw a doubling of the contractual funding from $20 million to $40 million regionally. Concurrently, Avista's share of NEEA funding increased from 4.0% to 5.4% due to shifts in the distribution of regional retail end-use load.

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.

Electric savings by NEEA is provided after the Biennium period is complete, Avista expects to have the 2014-2015 NEEA savings by spring of 2016.

NEEA has initiated a preliminary investigation of the prospects for a natural gas market transformation portfolio. Avista has actively encouraged NEEA to explore this role and believes that regional market transformation may be a valuable addition to the delivery mechanisms available to the utility industry in the cost-effective acquisition of natural gas resources. The NEEA Gas Initiative is a 5 year regional program funded by the regional Natural Gas Utilities (Avista, Cascade Natural – WA, Energy Trust of Oregon (Cascade Natural –OR, NW Natural, and Puget Sound Energy). The NEEA portfolio will focus on five residential/commercial areas: scanning the marketplace for innovations, codes and standards, research and evaluation, a mid-cycle review of the program, and create a new Natural Gas Advisory Committee.

8 Energy Efficiency Expenditures

During 2014, Avista incurred over $14.8 million in costs for the operation of electric and natural gas energy efficiency programs in Washington, with $11.1 million for electric energy efficiency and $3.8 million for natural gas energy efficiency. Of this amount, $1.5 million was contributed to the Northwest Energy Efficiency Alliance to fund regional market transformation ventures.

Fifty-four percent of expenditures were returned to ratepayers in the form of incentives or products (e.g. CFLs). During the 2014 calendar year, under $943 thousand, or 6.3 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 2014 calendar year and often differ from the cost-effectiveness section where all benefits and costs associated with projects completing in 2014 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

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	$1,290,155	$1,330,337	$224,814	$0	$2,845,306
Low Income	$1,191,700	$23,124	$55,489	$0	$1,270,313
Nonresidential	$2,833,856	$682,533	$265,289	$0	$3,781,678
Regional	$0	$16,895	$55,746	$1,445,817	$1,518,458
General	$0	$1,451,438	$187,834	$0	$1,639,272
Total	**$5,315,711**	**$3,504,328**	**$789,173**	**$1,445,817**	**$11,055,028**

Table 8-2: Avista Natural Gas Energy Efficiency Expenditures

Segment	Incentives	Implementation	EM&V	NEEA	Total
Residential	$1,219,974	$427,688	$25,562	$0	$1,673,224
Low Income	$755,113	$7,862	$5,962	$0	$768,937
Nonresidential	$768,990	$147,634	$22,177	$0	$938,800
Regional	$0	($271)	$0	$50,544	$50,815
General	$0	$293,767	$100,010	$0	$393,778
Total	**$2,744,077**	**$877,222**	**$153,711**	**$50,544**	**$3,825,554**

9 Tariff Rider Balances

As of the start of 2014, the Washington electric and natural gas (aggregate) tariff rider balances were underfunded by $6,116,838. During 2014, $18.0 million in tariff rider revenue was collected to fund energy efficiency while $14.9 million was expended to operate energy efficiency programs. The $3.1 million under-collection of tariff rider funding resulted in a year-end balance of $2.9 million underfunded balance.

During the first quarter of 2015, the underfunded balance has decreased to a total underfunded amount of $613,544. The bulk of this amount is attributable to Washington electric which ended the year with an underfunded balance of $2.0 million mostly due to the nonresidential prescriptive and site specific lighting programs.

Table 9-1 illustrates the 2014 tariff rider activity by fuel type.

Table 9-1 Tariff Rider Activity

	Electric	Natural Gas
Beginning Balance (Underfunded)	($5,459,324)	($657,513)
Energy Efficiency Funding	$14,535,951	$3,493,029
Net Funding of Operations	$9,076,627	$2,835,515
Energy Efficiency Expenditures	$11,055,123	$3,825,583
Ending Balances (Underfunded)	**($1,978,496)**	**($990,068)**

10 Actual to Business Plan Comparison

For 2014 operations, Avista exceeded budgeted electric energy efficiency expenditures by $211 thousand, or less than 2 percent and natural gas expenditures were exceeded by $588 thousand, or just over 15%. 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 2014 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 2014 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 Comparison[12]

	Electric	Natural Gas
Business Plan		
Incentives Budget	$4,759,660	$2,053,326
Non-incentives and Labor	$6,084,189	$1,183,926
Total Budgeted Expenditures	**$10,843,849**	**$3,237,252**
Actual 2014 Expenditures		
Incentives	$5,315,711	$2,744,077
Non-incentives and Labor	$5,739,317	$1,081,477
Total Actual Expenditures	**$11,055,028**	**$3,825,554**
Variance (Unfavorable)	**($211,179)**	**($588,302)**

[12] Budget values are from 2014 Business Plan

11 Net Cost Effectiveness Results

This section reports the cost-effectiveness results with net to gross values, including freeridership and spillover, as determined in impact evaluations conducted on the 2012-2013 programs. In summary, electric and natural gas net TRC is 1.36 and 0.36, respectively. Electric and natural gas net PAC test benefit-cost ratios are 2.48 and 0.59, 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: 2014 WA Electric Total Resource Cost (TRC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$24,423,746	$379,484	$24,803,231
Natural Gas Avoided Costs	-$971,395	-$38,142	-$1,009,537
Non-Energy Benefits	$121,690	$723,380	$845,071
TRC Benefits	**$23,574,041**	**$1,064,723**	**$24,638,764**
Non-Incentive Utility Costs	$5,077,606	$230,638	$5,308,244
Customer Costs	$11,840,195	$944,880	$12,785,076
TRC Costs	**$16,917,801**	**$1,175,518**	**$18,093,320**
TRC Ratio	**1.39**	**0.91**	**1.36**
Residual TRC Benefits	**$6,656,240**	**-$110,795**	**$6,545,444**

Table 11-2: 2014 WA Electric Program Administrator Cost (PAC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$24,423,746	$379,484	$24,803,231
Natural Gas Avoided Costs	-$971,395	-$38,142	-$1,009,537
PAC Benefits	**$23,452,351**	**$341,342**	**$23,793,693**
Non-Incentive Utility Costs	$5,077,606	$230,638	$5,308,244
Incentive Costs	$3,109,266	$1,191,700	$4,300,966
PAC Costs	**$8,186,872**	**$1,422,338**	**$9,609,210**
PAC Ratio	**2.86**	**0.24**	**2.48**
Net PAC Benefits	**$15,265,479**	**-$1,080,995**	**$14,184,483**

Table 11-3: 2014 WA Electric Participant Cost (PCT) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	$33,735,340	$618,376	$34,353,716
Gas Bill Reduction	-$41,174	-$2,125	-$43,298
Non-Energy Benefits	$121,690	$723,380	$845,071
Participant Benefits	**$33,815,857**	**$1,339,632**	**$35,155,488**
Customer Costs	$11,840,195	$944,880	$12,785,076
Incentive Received	-$3,109,266	-$1,191,700	-$4,300,966
Participant Costs	**$8,730,929**	**-$246,820**	**$8,484,110**
Participant Ratio	**3.87**	**N/A**	**4.14**
Net Participant Benefits	**$25,084,928**	**$1,586,451**	**$26,671,379**

Table 11-4: 2014 WA Electric Rate Impact Measure (RIM) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Cost Savings	$24,423,746	$379,484	$24,803,231
Non-Participant Benefits	**$24,423,746**	**$379,484**	**$24,803,231**
Electric Revenue Loss	$33,735,340	$618,376	$34,353,716
Non-Incentive Utility Costs	$5,077,606	$230,638	$5,308,244
Customer Incentives	$3,109,266	$1,191,700	$4,300,966
Non-Participant Costs	**$41,922,213**	**$2,040,713**	**$43,962,926**
RIM Ratio	**0.58**	**0.19**	**0.56**
Net RIM Benefits	**-$17,498,466**	**-$1,661,229**	**-$19,159,695**

11.2 Natural Gas Cost Effectiveness Results

Table 11-5: 2014 WA Natural Gas Total Resource Cost (TRC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	$2,113,530	$133,002	$2,246,532
Electric Avoided Costs	$0	-$1,121	-$1,121
Non-Energy Benefits	$0	$221,747	$221,747
TRC Benefits	**$2,113,530**	**$353,628**	**$2,467,159**
Non-Incentive Utility Costs	$1,703,389	$55,030	$1,758,419
Customer Costs	$4,391,213	$725,692	$5,116,905
TRC Costs	**$6,094,602**	**$780,722**	**$6,875,324**
TRC Ratio	**0.35**	**0.45**	**0.36**
Residual TRC Benefits	**-$3,981,071**	**-$427,094**	**-$4,408,165**

Table 11-6 2014 WA Natural Gas Program Administrator Cost (PAC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Natural Gas Avoided Costs	$2,113,530	$133,002	$2,246,532
Electric Avoided Costs	$0	-$1,121	-$1,121
PAC Benefits	**$2,113,530**	**$131,881**	**$2,245,411**
Non-Incentive Utility Costs	$1,703,389	$55,030	$1,758,419
Incentive Costs	$1,261,479	$755,113	$2,016,592
PAC Costs	**$2,964,868**	**$810,143**	**$3,775,011**
PAC Ratio	**0.71**	**0.16**	**0.59**
Net PAC Benefits	**-$851,338**	**-$678,262**	**-$1,529,600**

Table 11-7: 2014 WA Natural Gas Participant (PCT) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Bill Reduction	$4,638,095	$304,043	$4,942,138
Electric Bill Reduction	$0	-$62	-$62
Non-Energy Benefits	$0	$221,747	$221,747
Participant Benefits	**$4,638,095**	**$525,728**	**$5,163,824**
Customer Costs	$4,391,213	$725,692	$5,116,905
Incentive Received	-$1,261,479	-$755,113	-$2,016,592
Participant Costs	**$3,129,734**	**-$29,421**	**$3,100,313**
Participant Ratio	**1.48**	**N/A**	**1.67**
Net Participant Benefits	**$1,508,361**	**$555,149**	**$2,063,511**

Table 11-8: 2014 WA Natural Gas Rate Impact Measure (RIM) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Gas Avoided Cost Savings	$2,113,530	$133,002	$2,246,532
Non-Participant Benefits	**$2,113,530**	**$133,002**	**$2,246,532**
Gas Revenue Loss	$4,638,095	$304,043	$4,942,138
Non-Incentive Utility Costs	$1,703,389	$55,030	$1,758,419
Customer Incentives	$1,261,479	$755,113	$2,016,592
Non-Participant Costs	**$7,602,963**	**$1,114,186**	**$8,717,149**
RIM Ratio	**0.28**	**0.12**	**0.26**
Net RIM Benefits	**-$5,489,433**	**-$981,184**	**-$6,470,617**

11.3 Combined Fuel Cost Effectiveness Results

Table 11-9: 2014 WA Electric and Natural Gas Total Resource Cost (TRC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$24,423,746	$378,363	$24,802,110
Natural Gas Avoided Costs	$1,142,135	$94,860	$1,236,995
Non-Energy Benefits	$121,690	$945,128	$1,066,818
TRC Benefits	**$25,687,572**	**$1,418,351**	**$27,105,923**
Non-Incentive Utility Costs	$6,780,995	$285,668	$7,066,662
Customer Costs	$16,231,409	$1,670,573	$17,901,981
TRC Costs	**$23,012,403**	**$1,956,240**	**$24,968,643**
TRC Ratio	**1.12**	**0.73**	**1.09**
Residual TRC Benefits	**$2,675,168**	**-$537,889**	**$2,137,279**

Table 11-10: 2014 WA Electric and Natural Gas Program Administrator Cost (PAC) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Avoided Costs	$24,423,746	$378,363	$24,802,110
Natural Gas Avoided Costs	$1,142,135	$94,860	$1,236,995
PAC Benefits	**$25,565,881**	**$473,223**	**$26,039,105**
Non-Incentive Utility Costs	$6,780,995	$285,668	$7,066,662
Incentive Costs	$4,370,746	$1,946,813	$6,317,559
PAC Costs	**$11,151,740**	**$2,232,481**	**$13,384,221**
PAC Ratio	**2.29**	**0.21**	**1.95**
Net PAC Benefits	**$14,414,141**	**-$1,759,257**	**$12,654,884**

Table 11-11: 2014 WA Electric and Natural Gas Participant (PCT) (Net)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Electric Bill Reduction	$33,735,340	$618,314	$34,353,654
Gas Bill Reduction	-$41,174	-$2,187	-$43,360
Non-Energy Benefits	$121,690	$945,128	$1,066,818
Participant Benefits	**$38,453,952**	**$1,865,360**	**$40,319,312**
Customer Costs	$16,231,409	$1,670,573	$17,901,981
Incentive Received	-$4,370,746	-$1,946,813	-$6,317,559
Participant Costs	**$11,860,663**	**-$276,240**	**$11,584,422**
Participant Ratio	**3.24**	**N/A**	**3.48**
Net Participant Benefits	**$26,593,289**	**$2,141,600**	**$28,734,889**

Table 11-12: 2014 WA Electric and Natural Gas Rate Impact Measure (RIM) (Gross)

	Regular Income Portfolio	Low Income Portfolio	Overall Portfolio
Avoided Cost Savings	$26,537,277	$512,486	$27,049,763
Non-Participant Benefits	**$26,537,277**	**$512,486**	**$27,049,763**
Revenue Loss	$38,373,435	$922,419	$39,295,854
Non-Incentive Utility Costs	$6,780,995	$285,668	$7,066,662
Customer Incentives	$4,370,746	$1,946,813	$6,317,559
Non-Participant Costs	**$49,525,176**	**$3,154,900**	**$52,680,075**
RIM Ratio	**0.54**	**0.16**	**0.51**
Net RIM Benefits	**-$22,987,899**	**-$2,642,413**	**-$25,630,312**

Appendix A Washington 2014 Electric Impact Memorandum

Appendix B Washington 2014 Natural Gas Impact Memorandum