Utah Energy Efficiency and Peak Reduction Annual Report

January 1, 2014 – December 31, 2014

Issued May 1, 2015

ROCKY MOUNTAIN POWER

Let's turn the answers on.

1912–2012 100 Years

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TABLE OF CONTENTS

LIST OF ABBREVIATIONS AND ACRONYMS

CFL	Compact fluorescent Lighting
DSM	Demand-side Management
EPA	Environmental Protection Agency
GWh	Gigawatt-hour
HCD	Utah Department of Workforce Services, Housing and Community Development Division
HVAC	Heating, Ventilation and Air Conditioning
IRP	Integrated Resource Plan
kW	Kilowatt
kWh	Kilowatt hour
LED	Lighting-emitting Diode
NTG	Net-to-Gross
PCT	Participant Cost Test
PTRC	Total Resource Cost Test with 10 percent adder
RIM	Ratepayer Impact Measure Test
Schedule 193	Demand-Side Management Cost Adjustment
TRC	Total Resource Cost Test
UCT	Utility Cost Test

EXECUTIVE SUMMARY

Rocky Mountain Power ("Company") working in partnership with its retail customers and with the approval of the Public Utilities Commission of Utah ("Commission"), acquires energy efficiency and peak reduction resources as cost-effective alternatives to the acquisition of supply-side resources. These resources assist the Company in efficiently addressing load growth and contribute to the Company's ability to meet system peak requirements. Company energy efficiency and peak reduction programs provide participating Utah customers with tools that enable them to reduce or assist in the management of their energy usage, while reducing the overall costs to the Company's customers. These resources are relied upon in resource planning as a least cost alternative to supply-side resources.

This report provides details on program results, activities, expenditures, and status of the Demand-Side Management Cost Adjustment tariff rider ("Schedule 193") revenue for the performance period from January 1, 2014, through December 31, 2014.[1] The Company, on behalf of its customers invested $81.6 million in energy efficiency and peak reduction resource acquisitions during the reporting period. The investment yielded approximately 269 gigawatt-hours in first year energy savings,[2] 2,661,424 megawatt-hours of lifetime savings[3] from 2014 energy efficiency acquisitions and approximately 56.4 megawatts of capacity reduction from energy efficiency savings[4] and realized reductions associated with peak management activities of approximately 135 megawatts[5]. Net benefits based on the projected value of the energy savings over the life of the individual measures are estimated at $140.3 million [6]. The cost effectiveness of the Company's Utah energy efficiency portfolio including peak load reduction from various perspectives is provided in Table 1.

[1] Appendix 1 provides specific requirements from various Docket Numbers and where they are located in the annual report and appendices.
[2] Reported ex-ante savings as measured at generation.
[3] Estimated lifetime savings of 2014 Energy Efficiency Acquisitions was calculated by multiplying First Year Acquisitions (measured at the generator) by the weighted average measure life of the portfolio of 9.9 years, no discount was assumed for possible savings degradation over the life of the measures.
[4] See Appendix 2 for explanation on how the capacity contribution savings values are calculated.
[5] Realized load as measured at generation
[6] See Table 1 – Utility Cost Test Net Benefits.

Table 1 - Cost Effectiveness for the Portfolio

	Benefit/Cost Ratio	Net Benefits
Total Resource Test plus 10 percent ("PTRC")[7]	2.05	$147,019,587
Total Resource Cost Test ("TRC")[8]	1.86	$120,874,090
Utility Cost Test ("UCT")[9]	2.16	$140,298,864
Participant Cost Test ("PCT")[10]	2.42	$131,652,649
Ratepayer Impact ("RIM")[11]	1.03	$6,493,622

The portfolio was cost effective based on all of the five standard cost effectiveness tests for the 2014 reporting period. Annual performance information for 2014 cost effectiveness is provided in detail in Appendix 3.

In 2014, the Company further refined and provided on-going maintenance to the Technical Reference Library which documents in an electronic database the preliminary measure-level savings data, including the methods, assumptions and sources for those assumptions used for the reporting of program energy savings.

Another Company system implementation that was still being implemented during 2014 was the upgrade of the Company's tracking system which is used by Demand-side management ("DSM") to store information on completed customer projects. The system is known as DSM Central and integrates with the Technical Reference Library. Together the two systems will improve the process of validating reported savings data and costs.

The Company, working with its third-party program delivery administrators[12], collaborates with the following number of retailers, contractors and vendors in the delivery of its energy efficiency programs in Utah:

[7] The PTRC is the total resource cost test with an additional 10 percent added to the benefit side of the benefit/cost formula to account for non-quantified environmental and non-energy benefits of conservation resources over supply side alternatives.
[8] The TRC considers the benefits and costs from the perspective of all utility customers, comparing the total costs and benefits from both the utility and utility customer perspectives. It's assumed to be the closest in valuation methodology to how supply-side resources are valued.
[9] The UCT provides a benefit to cost perspective from that of the utility only, comparing the total cost incurred by the utility to the benefit/value of the energy and capacity saved, it contains no customer costs or benefits in calculation of the ratio.
[10] The PCT compares the portion of the resource paid directly by participants to the savings realized by the participants.
[11] The RIM examines the impact of energy efficiency expenditures on non-participating ratepayers overall. Unlike supply-side investments, energy efficiency programs reduce energy sales. Reduced energy sales can lower revenue requirements while putting near-term upward pressure on rates as the remaining fixed costs are spread over fewer kilowatt-hours.
[12] See program specific information for backgrounds on third party administrators.

Table 2
Energy Efficiency Infrastructure

Sector	Type	No.
Residential	Lighting Retailers	245
	Appliances Retailers	138
	HVAC[13] Contractors	200
	Insulation Contractors	134
	Window Contractors	56
	Low Income Agencies	1
Commercial and Industrial	Lighting Trade Allies	205
	HVAC Trade Allies	55
	Motors Trade Allies	70
	Engineering Firms	22

[13] Heating, ventilation and air conditioning

2014 Performance

Program and Sector level results for 2014 are provided in Table 3[14].

Table 3[15]
Utah Program Results for January 1, 2014 – December 31, 2014[16]

Utah Demand Side Management Annual Results for 2014

Load Management Programs	**kW/Yr (at site)**	**kW/Yr Savings (at gen)**	**Program Expenditures**
Cool Keeper (114)	107,942	118,000	$ 23,569,963
Irrigation Load Control (105)	15,563	17,001	$ 593,985
Total Load Management	**123,505**	**135,001**	**$ 24,163,948**
Energy Efficiency Programs	**kWh/Yr Savings (at site)**	**kWh/Yr Savings (at gen)**	**Program Expenditures**
Low Income Weatherization (118)	383,040	418,732	$ 162,859
New Homes (110)	2,306,788	2,521,735	$ 1,373,612
Refrigerator Recycling (117)	12,753,660	13,942,046	$ 1,532,539
Home Energy Savings (111)	82,132,877	89,786,018	$ 26,170,674
Home Energy Reporting	38,860,085	42,481,068	$ 1,263,240
Total Residential	**136,436,450**	**149,149,598**	**$ 30,502,923**
***watt*smart Business Commercial (140)	77,044,662	83,756,793	$ 14,038,536
***watt*smart Business Industrial (140)	32,611,646	34,517,797	$ 6,795,849
***watt*smart Business Agricultural (140)	1,457,205	1,591,807	$ 164,396
***watt*smart Portfolio (140)			$ 4,176,687
Total *watt*smart Business	**111,113,513**	**119,866,397**	**$ 25,175,468**
Outreach & Communications + Class 4			
Outreach and Communication Campaign			$ 1,549,007
U of U Ambassador Sponsorship			$ 7,236
Total Energy Efficiency	**247,549,963**	**269,015,995**	**$ 57,234,635**
		Total System Benefit Expenditures - All Programs	**$ 81,398,582**
		Portfolio Technical Reference Library	$ 23,166
		Portfolio DSM Central	$ 176,796
		Total Utah Program Expenditures	**$ 81,598,544**

[14] Cool Keeper program transitioned to new program administrator for 2014 control season. Costs include an investment in new load control system.
[15] Reported savings are ex-ante
[16] The values at generation include line losses between the customer site and the generation source. The company's line losses by sector for 2014 are 9.32 percent for residential, 8.71 percent for commercial, 5.85 percent for industrial and 9.24 percent for irrigation.

REGULATORY ACTIVITIES

During the reporting period, the Company filed a number of compliance filings, updates and requests with the Commission in support of the Company programs. The Company requested and received Commission approval of tariff modifications for the following:

- The Company filed for tariff revisions to Schedule 114 – Air Conditioner Direct Load Control Program (A/C-DLC) (Cool Keeper Program) on March 7, 2014. The purpose of the filing was to clarify how qualifying equipment can be cycled, correct a web address, and remove barriers to participation for commercial and industrial customers. The Commission approved the Company's filing effective April 6, 2014.
- The Company filed for tariff revisions to Schedule 140 – Non-Residential Energy Efficiency on May 7, 2014. The purpose of the filing was to update/add new measures and add an enhanced incentive offer for small business customers. The Commission approved the Company's filing effective July 1, 2014.
- The Company filed for tariff revisions to Schedule 118 – Low Income Weatherization on June 23, 2014. The purpose of the filing was to make several housecleaning adjustments, with no substantive changes to the program itself. The Commission approved the Company's filing effective August 1, 2014.
- The Company filed for tariff revisions to Schedule 117 – Residential Refrigerator Recycling Program on July 18, 2014. The purpose of the filing was to expand the program to include all retail tariff customers taking service under Schedule 193. At the time, the program was limited only to residential customers. The Commission approved the Company's filing effective August 17, 2014.
- The Company filed for tariff revisions to Schedule 111 – Home Energy Savings Incentive Program on July 9, 2014. The purpose of the filing was to propose modifications intended to introduce new energy efficiency opportunities, expand delivery channels, make administrative changes and align incentives with revised measure costs, savings estimates and standards. The Commission approved the proposed modifications effective September 9, 2014.
- The Company filed for tariff revisions to Schedule 193 – Demand Side Management (DSM) Cost Adjustment on December 31, 2014. The purpose of the filing was to adjust the current rates. A revised filing was submitted January 28, 2015 to adjust the current rate of 3.32 percent to 3.62 percent. The Commission approved the adjustment via a bench order with an effective date of February 1, 2015.

The Company also received approval or requested the following items:

- The Commission approved the Strategic Outreach and Communications Plan for DSM for 2014 on February 12, 2014.
- Acknowledgement on May 5, 2014 of the DSM Year Four Annual Report on the Strategic Communications and Outreach Program in compliance with the Commission Order of June 11, 2009, in Docket No. 09-035-36.
- Requested approval on September 2, 2014 in Docket No. 12-035-77 to expand and extend the Home Energy Reports Program. The filing was approved September 12, 2014 with an effective date of September 15, 2014.

- Acceptance of the 2013 Annual Report, acknowledged September 11, 2014.
- Acknowledgement on September 17, 2015 for the July 21, 2014 filing and July 30, 2014 revised filing of the Schedule No. 193 "Balancing Account Analysis" in Docket No. 14-035-102
- The Company filed to adjust the dollar amount cap for the Home Energy Reports program on October 24, 2014 in Docket No. 12-035-77. The Commission approved the Company's request in its Order issued January 8, 2015.
- The Company filed its year 6 DSM Communications Plan and Budget October 29, 2014 in Docket No. 14-035-141. The Commission approved the Company's year 6 plan and budget in its Order issued January 16, 2015.
- The Company filed to adjust the schedule for certain compliance reports December 17, 2014 in Docket No. 14-035-149. The Commission approved the Company's request in its Order issued January 29, 2015 with an effective date of January 1, 2015.
- Acknowledgement on December 18, 2014 of the 90 percent forecast threshold compliance notice filed October 24, 2014 in Docket No. 09-035-T08 pursuant to the approved stipulation in the same docket.
- Acknowledgement on January 14, 2015 of the Annual DSM Deferred Account and Forecast Report filed November 3, 2014 in Docket No. 14-035-142.

The Company also filed the following reports/notices:

- January 27, 2014, the Company filed quarterly program participation rates for the New Homes Program from October 1, 2013 – December 31, 2013.
- May 6, 2014, the Company filed quarterly program participation rates for the New Homes Program from January 1, 2014 – March 31, 2014.
- August 12, 2014, the Company filed quarterly program participation rates for the New Homes Program from April 1, 2014 – June 30, 2014.
- November 14, 2014, the Company filed quarterly program participation rates for the New Homes Program from July 1, 2014 – September 30, 2014.

Advisory Group and Steering Committee Activities

Consistent with the discussion in Docket No. 12-035-69, the Company seeks input regarding its energy efficiency programs from both the Utah DSM Steering Committee and the Utah DSM Advisory Group. Both groups include representatives from a variety of constituent organizations. Members of the Steering Committee, who are not already governed by Commission confidentiality rules, signed Confidentiality Agreements with the Company in order to provide input on issues involving sensitive, confidential, or proprietary information.

The Company consulted with the DSM Steering Committee or DSM Advisory Group throughout 2014 on the following matters:

February 12, 2014 – Steering Committee

- Provided an update on the Cool Keeper program;
- Presented a proposal to expand the Home Energy Reports program;
- Discussed Small to Medium Business Energy Reporting Pilot.

March 18, 2014 – Steering Committee – Phone Conference

- Discussed a proposal to consolidate required DSM filings.

April 3, 2014 – Advisory Group

- Presented new communication strategies and customer outreach ideas for the ***watt***smart® program.

April 10, 2014 – Advisory Group – Phone Conference

- Discussed proposed changes to the ***watt***smart Business program.

April 17, 2014 – Steering Committee – Phone Conference

- Discussed proposed changes to the Home Energy Savings program.

June 6, 2014 – Steering Committee

- Provided an update on the Home Energy Reports program;
- Discussed Small to Medium Business Energy Reporting Pilot;
- Discussed building operator certification continuation of funding;
- Presented proposed language for incentive offers where there is the possibility of the customer leaving the system;
- Discussed proposed changes to the Home Energy Savings program;
- Other Status Updates on:
    - Filing Consolidation
    - Semi-Annual Report and Tariff Rider.

June 6, 2014 – Advisory Group

- Reviewed the 2013 Annual Report;
- Reviewed the status of filings planned for 2014;
- Discussed proposed changes to the Home Energy Savings program;
- Provided an update on Home Energy Reports program.

June 10, 2014 – Steering Committee – Phone Conference

- Discussed proposed changes to the See ya later, refrigerator program.

July 30, 2014 – Steering Committee – Phone Conference

- Discussed the amended Semi-Annual Report;
- Reviewed the proposed expansion of the Home Energy Reports program;
- Discussed the lighting fixture proposed change included in the Home Energy Savings filing.

October 14, 2014 – Steering Committee

- Discussed changes to the New Homes Program for 2015;
- Reviewed the DSM Tariff Rider Analysis;
- Discussed Special Contract Customers;
- Reviewed the See ya later, refrigerator Food Bank Challenge;
- Reviewed the 2015 Communication and Customer Outreach Plan;
- Discussed Home Energy Report Program next steps;
- Provided updates for the MWh Forecast for 2014;
- Provided an update to Load Control Programs;
- Discussed the University of Utah Student Ambassador Program.

October 27, 2014 – Public Service Commission of Utah Regulatory Update Meeting

- Discussed Organizational Leadership Changes;
- Provided general updates on Demand Side Management and Energy Efficiency;
- Discussed Customer Service Initiatives;
- Provided a Generation update on 111(d), Regional Haze, Coal plant issues, and Utah Mining;
- Discussed Transmission issues, the Energy Imbalance Market and Status of Energy Gateway.

November 6, 2014 – Advisory Group

- Discussed EPA 111(d) proposal;
- Provided an update to the IRP Action Plan;
- Provided an update to the ***watt***smart Business program;
- Provided an update to the Skyline Project;
- Provided an update to the Summit County and Salt Lake County Georgetown University Energy Prize;
- Discussed the Smart Grid and Voltage Control findings and opportunities in Utah;
- Provided an update to the Cool Keeper and Irrigation Load Control programs;
- Provided the status of the Company's 2014 performance to initial 2014 Forecast;
- Reviewed the 2015 savings forecast, Budget and Plan;
- Discussed Emerging Technologies;
- Reviewed the 2015 Communication and Outreach Plan.

Schedule 193 Balancing Account Summary

Energy efficiency and peak reduction activities are funded by revenue collected through Schedule 193 Expenditures and are charged as incurred. The DSM balancing account is the mechanism used for managing Schedule 193 revenues collected and tracking the offsetting DSM expenses incurred.

The balancing account summary for 2014 is shown in Table 4.

Table 4
Schedule 193 Balancing Account Summary

State of Utah
Summary - Balancing Account

	Monthly Program Costs	Monthly Net Accrued Costs *	Rate Recovery	Carrying Charge	Cash Basis Accumulated Balance	Accrual Based Accumulated Balance
Balance as of 12/31/13					(8,932,931)	(6,272,071)
January	4,196,557	1,838,940	(4,530,672)	(58,922)	(9,325,968)	(4,826,168)
February	7,301,899	(719,295)	(3,936,378)	(49,490)	(6,009,936)	(2,229,431)
March	9,513,001	107,508	(4,826,684)	(23,742)	(1,347,361)	2,540,653
April	8,332,524	(364,022)	(4,024,108)	5,224	2,966,279	6,490,272
May	5,867,664	86,444	(4,206,798)	24,584	4,651,730	8,262,166
June	9,395,351	(224,950)	(5,230,147)	43,605	8,860,539	12,246,025
July	6,005,273	707,313	(6,293,445)	56,439	8,628,805	12,721,604
August	5,839,647	1,966,034	(6,733,047)	52,979	7,788,384	13,847,218
September	4,767,034	334,495	(5,742,216)	47,273	6,860,475	13,253,803
October	5,954,206	(1,449,085)	(4,844,020)	48,016	8,018,677	12,962,921
November	8,026,170	(832,510)	(4,253,145)	64,136	11,855,837	15,967,571
December	6,528,307	572,304	(4,736,239)	82,192	13,730,097	18,414,134
2014 totals	81,727,634	2,023,176	(59,356,899)	292,294		
*December 2014 total accrual		$4,684,037				

Column Explanations:

Monthly Program Costs –: Monthly expenditures for all DSM program activities posted in 2014.

Monthly Net Accrued Costs: Monthly net change of program costs incurred during the period not yet posted.

Rate Recovery: Revenue collected through Schedule 193.

Carrying Charge: Monthly carrying charge based on "Cash Basis Accumulated Balance" of the account.

Cash Basis Accumulated Balance: A running total of account activities. A negative accumulative balance means cumulative revenue exceeds cumulative expenditures; positive accumulative balance means cumulative expenditures exceed cumulative revenue.

Accrual Based Accumulative Balance: Current balance of account including accrued costs.

PLANNING PROCESS

Integrated Resource Plan

The Company develops a biennial integrated resource plan ("IRP") as a means of balancing cost, risk, uncertainty, supply reliability/deliverability and long-run public policy goals.[17] The plan presents a framework of future actions to ensure the Company continues to provide reliable, reasonable-cost service with manageable risks to the Company's customers. Energy efficiency and peak management opportunities are incorporated into the IRP based on their availability, characteristics and costs.

Energy efficiency and peak management resources are divided into four general classes:

- Class 1 DSM (Resources from fully dispatchable or scheduled firm capacity product offerings/programs) – Capacity savings occur as a result of active Company control or advanced scheduling. After customers agree to participate, the timing and persistence of the load reduction is involuntary on their part within the agreed limits and parameters.
- Class 2 DSM (Resources from non-dispatchable, firm energy and capacity product offerings/programs) – Sustainable energy and related capacity savings are achieved through facilitation of technological advancements in equipment, appliances, lighting and structures or sustainable verifiable changes in operating and maintenance practices, also commonly referred to as energy efficiency resources.
- Class 3 DSM (Resources from price responsive energy and capacity product offerings/programs) – Short-duration energy and capacity savings from actions taken by customers voluntarily based on pricing incentives or signal.
- Class 4 DSM (Resources from energy efficiency education and non-incentive based voluntary curtailment programs/communications pleas) – Energy and/or capacity reduction typically achieved from voluntary actions taken by customers to reduce costs or benefit the environment through education, communication and/or public pleas.

Class, 1, 2 and 3 DSM resources are included as resource options in the resource planning process. Class 4 DSM actions are not considered explicitly in the resource planning process, however, the impacts are captured naturally in long-term load growth patterns and forecasts.

As technical support for the IRP, a third-party demand-side resource potential assessment (Potentials Assessment) is conducted to estimate the magnitude, timing and cost of energy efficiency and peak management resources.[18] The main focus of the Potentials Assessment is on resources with sufficient reliability characteristics that are anticipated to be technically feasible and assumed achievable during the IRP's 20-year planning horizon. The estimated achievable

[17] Information on the Company's integrated resource planning process can be found at the following address: http://www.pacificorp.com/es/irp.html

[18] PacifiCorp Demand-Side Resource Potential Assessment For 2015-2034, http://www.pacificorp.com/es/dsm.html.

energy efficiency potential identified in the 2015 Potentials Assessment for Utah is 7,454 GWh by 2034, or 22 percent of projected baseline loads.[19] By definition this is the energy efficiency potential that may be achievable to acquire during the 20-year planning horizon; prior to screening for cost-effectiveness through the Company's integrated resource planning process.

The achievable technical potential of Class 2 (energy efficiency) resources for Utah by sector is shown in Table 5. The 2015 Potentials Assessment indicates that approximately 69 percent of the achievable technical potential for the Company, excluding Oregon,[20] is available within its Utah service area.[21]

Table 5
Utah Energy Efficiency Achievable Technical Potential by Sector

Sector	Cumulative GWh in 2034	Percent of Baseline Sales
Residential	2,025	21%
Commercial	4,017	32%
Industrial	1,369	12%
Irrigation	18	10%
Street Lighting	24	32%

Demand-side resources vary in their reliability, load reduction and persistence over time. Based on the significant number of measures and resource options reviewed and evaluated in the Potentials Assessment, it is impractical to incorporate each as a stand-alone resource in the IRP. To address this issue, Class 2 DSM measures and Class 1 DSM programs are bundled by cost for modeling against competing supply-side resource options reducing the number of discrete resource options the IRP must consider to a more manageable number.

The evaluation of Class 2 DSM (energy efficiency) resources within the IRP is also informed by state-specific evaluation criteria in the development of supply-curves. While all states generally use commonly accepted cost-effectiveness tests to evaluate DSM resources, some states require variations in calculating or prioritizing the tests:

- Utah utilizes the Utility Cost Test (UCT) as the primary determination of cost effectiveness.
- Idaho, Oregon, and Washington utilize the Total Resource Cost (TRC) test and consider the inclusion of quantifiable non-energy benefits.
- Oregon and Washington, in addition to considering quantifiable non-energy benefits, apply an additional 10% benefit to account for non-quantifiable externalities, consistent with the Northwest Power Act.
- Wyoming and California utilize the standard TRC test excluding quantifiable non-energy benefits and the 10% benefit adder Oregon and Washington consider.

[19] Ibid, Volume 2, page 4-2.
[20] Oregon energy efficiency potentials assessments are performed by the Energy Trust of Oregon.
[21] Volume 1, Page 4-2, PacifiCorp Demand-Side Resource Potential Assessment For 2015-2034.

The Company evaluates program implementation cost-effectiveness (both prospectively and retrospectively) under a variety of tests to identify the relative impact and/or value (e.g. near-term rate impact, program value to participants, etc.) to customers and the Company.

2014 PERFORMANCE COMPARED TO FORECAST

In 2014, the Company forecasted Utah energy efficiency program savings totaling 227,547 MWh/year and expected to achieve 147 MW[22] of controllable load under management. These forecasts were filed with the Commission on November 1, 2013.[23] The Company achieved energy efficiency acquisitions of 269,016 MWh and realized average controllable load management reductions of 135 MW. Variation between the load forecast and actual results for the irrigation load control program was a result of lower market adoption of irrigation load control as compared to the forecast.

Table 6 - 2014 Program Performance Compared to Forecast

Utah DSM 2014 Projected Savings	**2014 Forecast (Gross - at Gen)**		**2014 Actual (Gross - at Gen)**	
	MWH	**MW**	**MWH**	**MW**
Class 1 - Residential, Commercial, Industrial				
A/C Load Control Prgm - Residential (Sch. 114)		109		118
Industrial Irrigation Load Control (Sch. 105)		38		17
Total Class 1		147		135
Class 2 - Residential Programs				
Low Income (Sch. 118)	492		419	
New Construction (Sch. 110)	2,441		2,522	
Home Energy Reports	27,196		42,481	
Refrig. Recycle (Sch. 117)	13,819		13,942	
Home Energy Efficiency Incentive Prgm (Sch. 111)	77,643		89,786	
	121,591		149,150	
Class 2 - Non-Residential Programs				
wattsmart Business (Sch. 140)	105,956		119,866	
	105,956		119,866	
Total Class 2	227,547		269,016	

[22] Forecast realized load reduction associated with Cool Keeper and load under Irrigation management
[23] Refer to Docket No 13-035-183

PEAK REDUCTION PROGRAMS

Peak Reduction programs assist the Company in balancing the timing of customer energy requirements during heavy summer use hours; deferring the need for higher cost investments in delivery infrastructure and peak generation resources that would otherwise be needed to serve those loads for a select few hours each year. These programs help the Company maximize the efficiency of the Company's existing electrical system and reduce costs for all customers.

Programs targeting capacity related resources are often specific to end use loads most prevalent in a given jurisdiction, such as the agricultural pumping and space cooling loads in Utah. In 2014, the Company offered the irrigation load control program (Schedule 105) in the agricultural sector and the air conditioner load management program (Schedule 114) in the residential and small commercial sectors.

The Peak Reduction Programs achieved a total of 135 megawatt ("Mw") of realized load control (gross at generation) in 2014. Cost effectiveness results for the reporting period are provided in Table 7.

Table 7
Cost Effectiveness for Load Control Portfolio[24]

	Benefit/Cost Ratio
Total Resource Cost Test plus 10 percent	Pass
Total Resource Cost Test	Pass
Utility Cost Test	Pass
Participant Cost Test	N/A
Rate Payer Impact	Pass

Irrigation Load Control

The *Irrigation Load Control* program is offered to irrigation customers receiving electric service on Schedule 10, Irrigation and Soil Drainage Pumping Power Service. Participants enrolled with the third party program administrator to allow the curtailment of their electricity usage in exchange for a participation credit. For most participants, their irrigation equipment is set up with a dispatchable two-way control system giving the Company control over their loads. Under this control option participants are provided a day-ahead notification in advance of control events and have the choice to opt-out of a limited number of dispatch events per season.

[24] Decrement values or avoided costs are considered confidential on load control programs. Cost effectiveness ratios and inputs will be available under a protective agreement. A "Pass" designation equates to a benefit to cost ratio of 1 or better.

A summary of the program's performance, participation and cost effectiveness results for the reporting period are provided in Tables 8 and 9.

Table 8
Irrigation Load Control Program Performance

Total Enrolled (Gross – at Gen)	34 MW
Maximum Potential (at Gen)	17 MW
Average Realized load (at Gen)	13 MW
Maximum Realized load (at Gen)	13 MW
Participation Customers	55
Participation (Sites)	235

Table 9
Cost Effectiveness for Irrigation Load Control

	Benefit/Cost Ratio
Total Resource Cost Test plus 10 percent	Pass
Total Resource Cost Test	Pass
Utility Cost Test	Pass
Participant Cost Test	N/A
Rate Payer Impact	Pass

Program Management

The program manager who is responsible for the *Irrigation Load Control* programs in Utah is also responsible for the *Irrigation Load Control* program in Idaho and the *Cool Keeper* program in Utah. For each state the program manager is responsible for managing the program administrator, the cost effectiveness of the program, contracting with program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes to increase participation.

Program Administration

EnerNoc administers and manages the *Irrigation Load Control* program through a pay-for-performance structure and is responsible for all aspects of the program.

Irrigation Load Control Events and Performance

There were three control events initiated in 2014. The date, time and estimated impact for each event is provided in Table 10.

Table 10
Irrigation Load Control Events

Date	Event	Event Times	Estimated Load Reduction - Utah at Gen (MW)
7/10/14	1	4pm-8pm	(13)
7/17/14	2	3pm-7pm	(12)
7/23/14	3	3pm-7pm	(13)

Evaluation

No evaluation activities occurred during 2014.

Cool Keeper

The *Cool Keeper* program is an air conditioner direct load management program targeting residential and qualifying commercial customers (equipment size equal to or less than 15 tons) who cool their homes and businesses with electric central air conditioners. On select summer weekday afternoons, when electricity demand is at its highest, the *Cool Keeper* control equipment installed on a participating customer's cooling equipment is sent a signal to cycle the operation of the air conditioners compressor "off and on" for brief periods each hour in coordination with the air conditioners of other participating customers. For their participation, customers receive an annual "thank you" bill credit of either $20 or $40 per air conditioner being controlled depending on the size of the air conditioner. Starting with the 2014 season the Cool Keeper devices were replaced with two-way communicating devices which communicate through a wireless mesh network.

In 2014, the Company transitioned to a new program administrator. This change resulted in a company owned and operated control environment relying on two-way communications equipment for improved control, measurement and verification of program performance.

A summary of the program performance, participation and cost effectiveness results for the reporting period are provided in Tables 11 and 12 below.

Table 11
Cool Keeper Program Performance

Maximum Potential (at Gen)	118 MW
Maximum Realized (Gross – at Gen)	110 MW
Maximum Realized (At Site)	101 MW
Total Participation	92,100

Table 12
Cost Effectiveness for Cool Keeper

	Benefit/Cost Ratio
Total Resource Cost Test plus 10 percent	Pass
Total Resource Cost Test	Pass
Utility Cost Test	Pass
Participant Cost Test	NA
Rate Payer Impact	Pass

Program Management

The program manager who is responsible for the *Cool Keeper* program in Utah is also responsible for the *Irrigation Load Control* programs in Utah and Idaho. The program manager is responsible for managing the program administrators, the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in each tariff or state's compliance requirements.

Program Changes

In 2014, the *Cool Keeper* program was modified to:

- Increase commercial air conditioning unit sizing from 7.5 tons to 15 tons
- To limit program incentives for Commercial Rate Schedule Customers to one incentive per each qualifying equipment unit equipped with an active Load Control Device.

Program Administration

The *Cool Keeper* program is administered by GoodCents and Cooper Power Systems.

GoodCents is responsible for:

- Field operations including trouble calls, installation, and maintenance of the Cool Keeper devices.
- Customer satisfaction including call center support.

- Management of Cool Keeper participation data and reporting to actively manage the program.
- Quality control of the Cool Keeper device infrastructure to ensure a 99% availability of active devices.
- Marketing to maintain a minimum level of participation and megawatt reductions.

Cooper Power Systems is responsible for:

- Manufacture and delivery of the Cool Keeper devices.
- Installation, operation, and maintenance of the wireless mesh communication network.
- Quality control of the wireless mesh network.
- A hosted solutions platform to dispatch and monitor the health of the communication network.
- Program analytics including the ability to gain insight into the system and identify Cool Keeper devices which are no longer communicating.

Cool Keeper Load Control Events and Performance

There were three control events initiated in 2014. The date, time and estimated impact for each event is provided in Table 13.

Table 13
Cool Keeper Load Control Events

Date	Event	Event Times	Estimated Load Reduction - Utah at Gen (MW)
7/22/14	1	4:30pm-5:30pm	(95)
7/23/14	2	4:30pm-7:30pm	(110)
8/18/14	3	3pm-7pm	(84)

Evaluation

No evaluation activities occurred during 2014.

ENERGY EFFICIENCY PROGRAMS

Energy Efficiency programs are offered to all major customer sectors: residential, commercial, industrial and agricultural. The residential energy efficiency portfolio included the following programs: *Home Energy Savings* – Schedule 111, *Residential Refrigerator Recycling* – Schedule 117, *New Homes* – Schedule 110, *Home Energy Reports*, *Low-Income Weatherization* – Schedule 118.

The non-residential energy efficiency portfolio consists of *Non-Residential Energy Efficiency* program – Schedule 140.

The cost effectiveness results of the Energy Efficiency Portfolio for the 2014 reporting period are provided in Table 14.

Table 14
Cost Effectiveness for Energy Efficiency Portfolio

	Benefit/Cost Ratio	Net Benefits
Total Resource Cost Test plus 10 percent	1.31	$29,616,695
Total Resource Cost Test	1.19	$18,343,041
Utility Cost Test	2.01	$56,577,965
Participant Cost Test	2.22	$112,842,499
Rate Payer Impact	0.59	($77,227,277)

Table 15 provides a summary by program of the Gross and Net savings acquired in 2014 at site and at generation.

Table 15
Energy Efficiency Gross and Net Savings[25]

Program	Gross kWh Savings at site	Net kWh Savings at site	Gross kWh Savings at gen	Net kWh Savings at gen
Low Income	383,040	383,040	418,732	418,732
New Homes	2,306,788	1,845,430	2,521,735	2,017,387
Refrigerator Recycling	12,753,660	7,341,941	13,942,046	8,026,063
Home Energy Savings	82,132,877	61,206,845	89,786,018	66,910,099
Home Energy Reports	38,860,085	38,860,085	42,481,068	42,481,068
wattsmart Business	111,113,513	86,801,876	119,866,397	93,614,365
Total	247,549,963	196,439,217	269,015,995	213,467,713

[25] Net savings include realization rates and NTG ratios.

RESIDENTIAL PROGRAMS

The residential energy efficiency portfolio was comprised of five programs; *Home Energy Savings, Refrigerator Recycling, New Homes, Home Energy Reports,* and *Low Income Weatherization.* As shown in Table 16 below, the residential portfolio was cost effective based on four of the five standard cost effectiveness tests for the 2014 reporting period. The ratepayer impact test was less than 1.0 indicating that there is near term upward pressure placed on the price per kilowatt-hour given a reduction in sales.

Table 16
Cost Effectiveness for Residential Portfolio

	Benefit/Cost Ratio	Net Benefits
Total Resource Test plus 10 percent	1.18	$9,325,626
Total Resource Cost Test	1.08	$3,876,199
Utility Cost Test	1.79	$23,991,347
Participant Cost Test	2.15	$59,525,976
Rate Payer Impact	0.55	($44,368,832)

Home Energy Savings

The *Home Energy Savings* program is designed to provide access to and incentives for more efficient products and services installed or received by customers in new or existing homes, multi-family housing units or manufactured homes. Program participation by measure is provided in Table 17.

Table 17
Eligible Program Measures (Units)[26]

Measures	Unit Measurement	2014 Total Units	2014 Total Participants	2014 Total kWh
Central Air Conditioner Best Practice Installation	Projects	1,609	1,573	129,685
Central Air Conditioner Equipment	Units	1,762	1,724	604,366
Central Air Conditioner Proper Sizing	Projects	932	913	223,680
Duct Sealing & Insulation	Projects	6,625	2,436	2,957,817
Efficient Gas Furnace with Electrically Commutated Motor	Units	1,540	1,509	805,420
Electric Water Heater	Units	9	9	1,115
Heat Pump Water Heater	Units	1	1	881

[26] Units are dependent on the measure i.e. insulation is in square feet, dishwashers is a straight count of dishwashers receiving an incentive, CFLs are an estimate of total bulbs, etc.

Measures	Unit Measurement	2014 Total Units	2014 Total Participants	2014 Total kWh
Clothes Washer	Units	8,693	8,613	928,637
Dishwasher	Units	3,275	3,268	150,251
Freezer	Units	5	5	472
Refrigerator	Units	567	566	48,687
Room Air Conditioner	Units	191	183	14,134
Evaporative Cooler - Permanently Installed	Units	169	168	254,007
Evaporative Cooler - Portable	Units	117	114	80,262
Evaporative Cooler - Premium	Units	1,486	1,043	2,233,458
Evaporative Cooler - Premium Ducted	Units	29	29	43,587
Evaporative Cooler - Replacement	Units	313	271	470,439
Insulation-Attic	Square feet	13,469,913	6,569	2,705,632
Insulation-Floor	Square feet	534	2	1,887
Insulation-Wall	Square feet	526,517	537	348,158
Insulation-Combination Bonus	Units	11	11	NA
Windows	Square feet	194,664	1,245	207,601
Light Fixture	Units	517,929	33,302	14,764,632
CFL Bulbs	Bulbs	1,810,579	181,058	36,900,138
LED Bulbs	Bulbs	576,100	576,100	18,257,931
Grand Total		**17,123,570**	**821,249**	**82,132,877**

Program performance results for January 1, 2014 – December 31, 2014 are provided in Table 18.

Table 18
Cost Effectiveness for Home Energy Savings

	Benefit/Cost Ratio	Net Benefits
Total Resource Cost Test plus 10 percent	1.14	$6,455,411
Total Resource Cost Test	1.04	$1,796,060
Utility Cost Test	1.78	$20,422,829
Participant Cost Test	1.92	$45,691,991
Rate Payer Impact	0.56	($36,535,133)

Program Management

The program manager who is responsible for the program *Home Energy Savings* program in Utah is also responsible for the *Home Energy Savings* program in California, Idaho, Washington and Wyoming and the *New Homes* program in Utah. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

Program Administration

The *Home Energy Savings* program is administered by CLEAResult.

CLEAResult is responsible for the following:

- Retailer and trade ally engagement – CLEAResult identifies, recruits, supports and assists retailers to increase the sale of energy efficient lighting, appliances and electronics. CLEAResult enters into promotion agreements with each lighting manufacturer and retailer for the promotion of discounted CFL and LED bulbs. The agreements include specific retail locations, lighting products receiving incentives and not-to-exceed annual budgets. Weatherization and HVAC trade allies engaged with the program are provided with program materials, training, and regular updates.
- Inspections – CLEAResult recruits and hires inspectors to verify on an on-going basis the installation of measures. A summary of the inspection process is in Appendix 4.
- Incentive processing and call-center operations – CLEAResult receives all requests for incentives, determines whether the applications are completed, works directly with customers when information is incorrect and/or missing from the application and processes the application for payment.
- Program specific customer communication and outreach – A summary of the communication and outreach conducted by CLEAResult on behalf of the Company is outlined in the Communication, Outreach, and Education section.

Program Changes

In 2014, the *Home Energy Savings* program was modified to include:

- ***watts***mart Starter Kits with ENERGY STAR® lighting and WaterSense® products, depending on the customers' water heating type.
- Direct install duct sealing for customers in manufactured homes with forced air electric furnaces.
- Realigned incentives for comprehensive whole home upgrades including heating and cooling systems, air sealing, insulation, duct sealing and duct insulation.

Infrastructure

The total number of participating retailers participating in the program is currently 667. The current count of participating retailers by measure group is provided in the Table 19. Detail of participating retailers is available in Appendix 5.

Table 19
Participating Retailers[27]

Lighting Retailers	Appliance Retailers	HVAC Contractors	Weatherization
245	138	200	190

[27] Some retailers/contractors may participate in the promotion of more than one measure group so the count of unique participating firms is less than the total count provide above.

Evaluation

In January 2014, a process and impact evaluation was completed by a third party evaluator for program years 2011-2012. The primary objective of the evaluation report is to determine the extent to which participants in the *Home Energy Savings* program reduced their energy consumption due to the program. Secondary objectives are to report on customer satisfaction, program awareness and motivations for participation in the program. The results of the evaluation can be viewed at www.pacificorp.com/es/dsm/utah.html. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 6.

Refrigerator Recycling

The *Refrigerator Recycling* program, also known as "See ya later, refrigerator", is designed to decrease electricity use through voluntary removal and recycling of inefficient refrigerators and freezers. Participants receive a $30 incentive for each qualifying refrigerator or freezer recycled through the program and an energy-saving kit which includes two CFLs, a refrigerator thermometer card, energy-savings educational materials, and information on other efficiency programs relevant to residential, commercial and industrial customers. In the third quarter, the program was expanded to include pickups from business customers and retailers.

Program participation by measure is provided in Table 20.

Table 20
Eligible Program Measures (Units)

Measures	2014 Total	2014 kWh @ site
Refrigerator Recycling	8,401	10,332,075
Freezer Recycling	2,023	1,967,287
Energy Savings Kit	9,904	454,298
Total	20,328	12,753,660

Program performance results for January 1, 2014 – December 31, 2014 are provided in Table 21.

Table 21
Cost Effectiveness for Refrigerator Recycling

	Benefit/ Cost Ratio	Net Benefits
Total Resource Cost Test plus 10 percent	2.30	$1,990,368
Total Resource Cost Test	2.09	$1,670,104
Utility Cost Test	2.09	$1,670,104
Participant Cost Test[28]	NA	$8,584,156
Rate Payer Impact	0.51	($3,046,924)

[28] Participants in program incur no costs.

In 2014, more than 1.3 million pounds of metal, 174,089 pounds of plastics, 12.5 tons (25,000 pounds) of tempered glass and the capture, recovery or destruction of more than 11,539 pounds of ozone depleting Chlorofluorocarbons (greenhouse gases) and Hydro fluorocarbons, commonly used in refrigerants and blowing agents for polyurethane foam insulation. The Carbon Dioxide and Equivalent carbon dioxide avoided from the atmosphere was in excess of 25,000 metric tons.

Program Management

The program manager responsible for the *Refrigerator Recycling* program in Utah is also responsible for the *Refrigerator Recycling* program in California, Idaho, Washington and Wyoming and *Home Energy Reports* program in Utah, Idaho, Washington, and Wyoming. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the tariff.

Program Administration

The *Refrigerator Recycling* program is administered by JACO Environmental ("JACO"). JACO is one of the largest recyclers of house-hold appliances in the United States. The Company contracts with JACO to provide customer scheduling, pick-up, incentive processing and marketing services for the *See ya later, refrigerator* program.

JACO also ensures that over 95 percent of the components and materials of the discarded appliance are either recycled for beneficial uses or eliminated in an environmentally responsible way. The remaining 5 percent can then be productively used as "fluff" to facilitate the decomposition of biodegradable landfill material.

JACO is responsible for the following:

- Appliance Pick-up – JACO handles all customer and field service operations for the program including pick-up of refrigerators and freezers from customers, transporting the units to the de-manufacturing facility.
- Incentive processing and call-center operations – Customer service calls, pick-up scheduling and incentive processing.
- Program specific customer communication and outreach – Working in close coordination with the Company, JACO handles all the marketing for the program. The program is marketed through bill inserts, customer newsletters and TV, newspaper and online advertising.

As part of the program control process, the Company contracts with a third-party independent inspector to conduct ongoing oversight of the program's appliance recycling process, from verification that the units being recycled meet the program eligibility criteria to verifying they are being recycled and that the program records are accurate.

A summary of the inspection process is included in Appendix 4.

Infrastructure

Refrigerators and freezers are collected from residential customers and trucked to JACO facility in Salt Lake City, Utah for disassembly and recycling.

Evaluation

No evaluation activities occurred during 2014.

New Homes

The *New Homes* program provides incentives for new homes and multi-family units meeting the specific energy efficiency requirements as outlined in the program's tariff. The *New Homes* program has shown success in helping improve building practices in Utah. To be eligible for program incentives, a home must have installed qualifying stand-alone measures, or a residence must meet the minimum standards and certifications set by the program, such as a certification of ENERGY STAR.

Program participation results for 2014 are provided in Table 22.

Table 22
New Homes Program Participation

New Homes Measure Participation	Units	kWh savings (at site)
High Performance ESTAR v3 SF	28	28,084
High Performance ESTAR v	4	1,624
ESTAR 3.0 SF	535	271,245
ENERGY STAR V3 - Whole Home Option MF	234	70,668
GSHP E* 17 EEF 3.6 COP SF	3	10,578
80% E* lighting <2000 SF	180	82,620
80% E* lighting 2000 to 3500 SF	598	397,670
2014 EISA - 80% E* lighting >3500 SF	267	178,356
2014 EISA - 80% E* lighting <850 MF	556	108,976
2014 EISA - 80% E* lighting 850 to 1500 MF	712	272,696
2014 EISA - 80% E* lighting >1500 MF	53	27,878
2013 EISA - 80% E* lighting <2000 SF	46	31,464
2013 EISA - 80% E* lighting 2000 to 3500 SF	141	148,614
2013 EISA - 80% E* lighting >3500 SF	129	127,448
2013 EISA - 80% E* lighting <850 MF	39	13,260
2013 EISA - 80% E* lighting 850 to 1500 MF	24	13,296
2013 EISA - 80% E* lighting >1500 MF	5	3,755
HVAC-QI Contractor cert w ECM SF	3	1,251
HVAC-QI Rater cert SF	395	74,260
HVAC-QI Rater cert w ECM SF	166	84,826
HVAC-QI Rater cert MF	388	30,652

New Homes Measure Participation	Units	kWh savings (at site)
2X6 R-20 Walls SF	875	84,875
2X6 R-20 Walls MF	1,461	10,227
15 SEER / 12 EER / TXV SF	74	15,614
IECC 2009 Builder cert SF	2	66
IECC 2009 Rater cert SF	286	10,868
IECC 2009 Builder cert MF	169	7,098
IECC 2009 Rater cert MF	797	33,474
Dishwasher EF 0.75+ SF	1,401	64,446
Dishwasher EF 0.75+ MF	1,674	77,004
Refrigerator 10%> Energy Star SF	115	9,315
Refrigerator 10%> Energy Star MF	180	14,580
Total	11,540	2,306,788

Program performance results for January 1, 2014 – December 31, 2014 are provided in Table 23.

Table 23
Cost Effectiveness for New Homes

	Benefit/Cost Ratio	Net Benefits
Total Resource Cost Test plus 10 percent	0.58	($1,205,667)
Total Resource Cost Test	0.53	($1,356,242)
Utility Cost Test	1.10	$132,137
Participant Cost Test	1.21	$532,904
Rate Payer Impact	0.44	($1,889,796

Cost effectiveness improved over the previous year due to an overall increase in participation and a decrease in program expenditures. Proposed program changes were shared with the Utah DSM Steering Committee in October 2014 and are expected to be filed in 2015. These proposed changes are expected to improve participation and on-going cost effectiveness.

Program Management

The program manager who was responsible for the *New Homes* program in Utah is also responsible for new home services found in the *Home Energy Savings* program in California, Idaho, Washington and Wyoming. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set in each state's compliance requirements.

Program Administration

The *New Homes* program is administered by Nexant, Inc. ("Nexant"). Nexant's services include design, implementation and evaluation of commercial, industrial, and residential energy efficiency program in the United States. The Company contracts with Nexant to provide coordination and application processing services for *New Homes* program.

Specifically, Nexant is responsible for the following:

- Builder and trade ally engagement – Identifies, recruits, supports and assists builders and their sub-contractors to increase energy efficiency standards in new residential contractions
- Incentive processing and administrative support – Handles incoming inquiries as assigned, processes incentive applications, provide program design services, evaluation and regulatory support upon request.
- Inspections – Verifies on an on-going basis the installation of measures. Summary of the inspection process is in Appendix 4.
- Program specific customer communication and outreach

Infrastructure

The program processed 11,540 measures in 3,243 homes in 2014. In addition, the program provided training sessions and promotional support including:

- Presentation to Northern Wasatch Home Builders Association.
- Annual builder meeting held in conjunction with Questar.
- Hosted a combustion appliance zone safety training for home raters.
- Program staff participated on the board of directors of the Salt Lake Home Builder Associations and Utah State Home Builders Association.
- Quarterly meetings with home raters.

Evaluation

No evaluation activities occurred during 2014.

Home Energy Reports

The *Home Energy Report* program is designed to better inform residential customers about their energy usage by providing comparative energy usage data for similar homes located in the same geographical area. In addition, the report provides the customer with information on how to decrease their energy usage. Equipped with this information, customers can modify behavior and/or make structural equipment, lighting or appliance changes to reduce their overall electric energy consumption.

Reports were initially provided to approximately 95,000 customers; however this number is expected to decrease due to customer attrition related to general customer churn (customer move-outs)[29] and customers requesting to be removed from the program. In 2014, program changes were approved extending the program time period through December 2017 and expanding the program to an additional 220,000 customers. These customers received their initial reports in October 2014.

Monthly reports are mailed to all new program participants for the initial three months in order to build program awareness. Following this initial three month period, report frequency is moved to a bi-monthly schedule for the remainder of the treatment period. All participating customers may request an electronic version delivered via email and have access to a web portal containing the same information about their usage provided in the report. The web portal also contains other functions such as a home energy audit tool the ability for customers to update their home profile (for more accurate comparisons) and suggestions on more ways to save energy around their home.

Program savings by group for January 1, 2014 – December 31, 2014 is provided in Table 24.

Table 24
Cost Effectiveness for Home Energy Reports

	B/C Ratio	Net Benefits
Total Resource Test plus 10%	2.47	$1,859,526
Total Resource Cost Test	2.25	$1,575,638
Utility Cost Test	2.25	$1,575,638
Participant Cost Test	NA	$4,292,469
Rate Payer Impact	0.51	($2,716,831)

Program Management

The program manager overseeing *Home Energy Reports* program activity in Utah is also responsible for the *Home Energy Reports* program in Idaho, Washington and Wyoming as well as the *See ya later, refrigerator* program in Utah, California, Idaho, Washington and Wyoming. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set in each state's compliance requirements.

Program Administration

The *Home Energy Reports* program is administered by Opower. Opower's software creates individualized energy reports for utility customers that analyze their energy usage and offers

[29] As of the end of 2014 approximately 77,864 customers were still participating and receiving home energy reports.

recommendations on how to save energy and money by making small changes to their energy consumption. The Company contracts with Opower to provide energy savings, software services, and printing and delivery of energy reports to customers.

Opower is responsible for the following:

- Selecting Qualifying Customers – Opower conducts an analysis to identify qualifying customers that are then randomly selected into the program's treatment (those who will receive reports) and control groups (for measurement and verification).
- Customer Comparison Analysis – Opower conducts statistical analysis to perform pattern recognition in order to derive actionable insights to selected customers.
- Energy Report Delivery – By mail or email.
- Web Portal Design and Support – Opower operates and maintains a customer Web portal that participants may visit for additional information about their energy usage and saving opportunities.

Evaluation

In June 2014, a process and impact evaluation was completed by a third party evaluator for the period of August 1, 2012 – January 31, 2014. The primary objective of the evaluation report was to determine the extent to which participants in the *Home Energy Reports* program reduced their energy consumption due to the program. Secondary objectives are to report on customer satisfaction with the program, and on behavioral and information effects of the program. The results of the evaluation can be viewed at www.pacificorp.com/es/dsm/utah.html. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 6

Low Income Weatherization

The *Low Income Weatherization* program provides energy efficiency services through a partnership with the Utah Department of Workforce Services, Housing and Community Development Division ("HCD") to income-eligible households. Services are at no cost to the program participants.

In 2014, there were 419 homes served. The measures installed through the *Low Income Weatherization* program are limited to those that reduce electricity use in participant's homes. The majority of homes served are not electrically heated and do not have electric water heaters, so most of the Company funds cover lighting and refrigerator replacement costs.

Total homes treated under the program in 2014, as well as the type and frequency of specific energy efficiency measures installed in each home, is provided in Table 25.

Table 25
Total Homes Served and Measure Counts

Participation – Total number of Homes Served	419
Duct Sealing	5
Furnace Fans	103
Compact Fluorescent Light Bulbs	406
Refrigerator Testing on Models not Replaced	268
Refrigerator Replacements	132
Energy Education	2
Thermostats	3

Program performance results for January 1, 2014 – December 31, 2014 are provided in Table 26.

Table 26
Cost Effectiveness for Low Income

	Benefit/Cost Ratio	Net Benefits
Total Resource Test plus 10 percent	2.39	$225,989
Total Resource Cost Test	2.17	$190,639
Utility Cost Test	2.17	$190,639
Participant Cost Test	NA	$424,455
Rate Payer Impact	0.66	($180,148

Program Management

The program manager who is responsible for the *Low Income Weatherization* program in Utah is also responsible for the *Low Income Weatherization* program in California, Idaho, Washington and Wyoming; energy assistance programs in Utah, California, Idaho, Oregon, Washington and Wyoming; and bill discount programs in Utah, California and Washington. The program manager is responsible for the cost effectiveness of the weatherization program in each state, partnerships and agreements in place with agencies that serve income eligible households, establishing and monitoring program performance and compliance, and recommending changes in the terms and conditions set out in the agency contracts and state specific tariffs.

Program Administration

The Company currently has a contract in place with HCD to provide services through the *Low Income Weatherization* program. This state agency receives federal funds and subcontracts with 8 non-profit agencies that install energy efficiency measures in the homes of income eligible households throughout the Company's service area. Company funding of 50 percent of the cost of approved measures is leveraged by HCD with the federal funding they receive, allowing more homes to be served each year.

By contract with the Company, HCD and their subcontracting local agencies are responsible for the following:

- Income Verification – The local agencies determine participants are income eligible based on HCD guidelines. Household's interested in obtaining weatherization services apply through the agencies. The current income guidelines are be viewed at www.benefits.gov/benefits/benefit-details/1884.
- Energy Audit – Agencies use a United States Department of Energy approved audit tool to determine the cost effective measures to install in the participant's homes (audit results must indicate a savings to investment ratio of 1.0 or greater).
- Installation of Measures – Agencies install the energy efficiency measures.
- Post Inspections – Agencies inspect 100 percent of completed homes. HCD also inspects a random sample of homes. See Appendix 4 for verification summary.
- Billing Notification – HCD is required to submit a billing to Company within 60 days after job completion. They include a form indicating the measures installed and associated cost on each completed home along with their invoice.

Evaluation

A process and impact evaluation was completed by a third party evaluator for program years 2010-2012. The primary objective of the evaluation report is to determine the extent to which participants in the *Low Income Weatherization* program reduced their energy consumption due to the program. Secondary objectives are to report on customer satisfaction and program awareness. The results of the evaluation can be viewed at www.pacificorp.com/es/dsm/utah.html. The Company's response to the recommendations and web link to the evaluation report are included in Appendix 6.

NON-RESIDENTIAL ENERGY EFFICIENCY

The *Non-Residential Energy Efficiency* program is promoted to the Company's customers as ***watt***smart Business.

Projects completed in the current period by customer sector are provided in Table 27.

Table 27
Participation by Sector

	Measures Installed	Total kWh Savings (at site)	Cash Incentive	Bill Credits
Commercial	9,269	77,044,662	$10,394,141	$1,270,102
Industrial	1,480	32,611,646	$1,998,395	$2,046,407
Agricultural	237	1,457,205	$155,559	
Total	10,986	111,113,513	$12,548,095	$3,316,509

Program participation by measure group in the current period is provided in Table 28.

Table 28
Participation by Measure Group

Measure Groups	2014Total Count by Measure Group	2014 Totals kWh Savings (at site)
Additional Measures	10	9,174,395
Compressed Air	39	2,988,034
Cooking Equipment	51	75,747
Energy Management	2	309,466
Farm and Dairy	5	107,515
HVAC	394	10,989,165
Irrigation	233	1,487,154
Lighting	9,529	71,458,050
Motors	156	7,159,488
Office Equipment	103	4,736,106
Refrigeration	10	1,136,753
Weatherization	454	1,491,640
Program Totals	10,986	111,113,513

Program performance results for January 1, 2014 – December 31, 2014 are provided in Table 28 below.

Table 28
Cost Effectiveness for Non-Residential Energy Efficiency

	Benefit/Cost Ratio	Net Benefits
Total Resource Test plus 10 percent	1.52	$20,047,274
Total Resource Cost Test	1.39	$16,223,047
Utility Cost Test	2.44	$34,342,823
Participant Cost Test	2.32	$53,316,524
Rate Payer Impact	0.65	($31,102,239)

The *Non-Residential Energy Efficiency* program is intended to maximize the efficient utilization of electricity for new and existing non-residential customers through the installation of energy efficiency measures and energy management protocols. Qualifying measures are any measures which, when implemented in an eligible facility, result in verifiable electric energy efficiency improvements.

Services offered through the *Non-Residential Energy Efficiency* program are:

- Typical Upgrades: Provides streamlined incentives for lighting, HVAC, compressed air and other equipment upgrades that increase electrical energy efficiency and exceed code requirements.
- Small Business Lighting: Provides enhanced incentives for lighting retrofits installed by approved trade allies at eligible small business customer facilities (This offer was added in July 2014).
- Custom analysis: Offers energy analysis studies and services for more complex projects.
- Energy management: Provides expert facility and process analysis to help lower energy costs by optimizing customer's energy use. Energy project manager co-funding: Available to customers who can commit to an annual goal of completing energy project resulting in at least 1,000,000 kWh/year in energy savings.
- Paid Commissioning: Helps customers (and the Company) verify the energy savings associated with the efficiency upgrades and/or changes in operations.

Program Management

The program managers overseeing *Non-Residential Energy Efficiency* program activity in Utah are also responsible for *Non-Residential Energy Efficiency* program in California, Idaho, Washington, and Wyoming. For each state the program managers are responsible for the management of the program administrators, cost effectiveness, identifying and contracting with the program administrators through a competitive bid process, program marketing, achieving and monitoring program performance and compliance, and recommending changes in the terms and conditions of the program.

Program Administration

The program is primarily administered through two channels that are differentiated based upon customer needs. The first channel generally targets typical opportunities which serve small to medium sized business customers and to lesser extent large business customers. Administration is provided through Company contracts with Nexant, Inc. ("Nexant") and Cascade Energy ("Cascade") who manage trade ally coordination, training and application processing services for commercial and industrial/agricultural measures respectively. The second channel targets large energy users who generally have multiple opportunities for energy efficiency improvements, such as those that require custom analysis, is administered by internal project managers allowing for a single point of contact to assist customers with their various opportunities.

Nexant and Cascade are responsible for the following:

- Trade ally engagement to help increase and improve the supplier and installation contractor infrastructure for energy-efficient equipment and services – includes identification, recruiting, training, supporting and assisting trade allies to increase sales and installation of energy efficient equipment at qualifying business customer facilities.
- Incentive processing and administrative support –includes handling incoming inquiries as assigned, processing incentive applications, developing and maintaining standardized analysis tools and providing program design services, evaluation and regulatory support upon request. Custom analysis and project facilitation for small/medium customer projects
- Direct customer outreach and project facilitation for smaller customer projects.
- Inspections –includes verifying on an on-going basis the installation of measures. Summary of the inspection process is in Appendix 4.

Infrastructure

To help increase and improve the supplier and installation contractor infrastructure for energy-efficient equipment and services, the Company established and developed trade ally networks for lighting, HVAC and motors/VFDs. This work includes identifying and recruiting trade allies, providing program and technical training and providing sales support on an ongoing basis. The current list of the trade allies who have applied and been approved as participating vendors are posted on the Company website and is included as Appendix 7 to this report. In most cases, customers are not required to select a vendor from these lists to receive an incentive[30].

The total number of participating trade allies is currently 266. The current counts of participating trade allies by technology are in the Table 30.

[30] Customers receiving Small Business Lighting incentives do need to use an approved contractor selected from a competitive request for bid process.

Table 30
Participating Trade Allies[31]

	Lighting trade allies	HVAC trade allies	Motors and VFD trade allies
List dated 5/2/2014	205	55	70

Internal Project Managers are responsible for the following:

- Single point of contact for large customers to assist with their energy efficiency projects.
- Large customer outreach and education of energy efficiency opportunities.
- Providing custom energy efficiency analysis, quality assurance and verification of savings through a pre-contracted group of engineering firms.
- Managing engineering firms to ensure program compliance, quality of work, and customer satisfaction.
- Managing ***watt***smart business projects through the whole project lifecycle.

Table 31 lists the engineering firms currently under contract with the Company.

Table 31
Energy Engineering Firms

Energy Engineering Firm	Main Office Location
Abacus Resource Management Company	Beaverton, OR
Brendle Group	Fort Collins, CO
Cascade Energy Engineering	Cedar Hills, UT
Compression Engineering Corp	Salt Lake City, UT
Ecova	Portland, OR
EMP2, Inc	Richland, VA
Energy Resource Integration, LLC	Sausalito, CA
Energy and Resource Solutions	North Andover, MA
EnerNOC Inc.	Portland, OR
EnSave, Incorporated	Richmond, VT
ETC Group, Incorporated	Salt Lake City, UT
Evergreen Consulting Group	Beaverton, OR
Fazio Engineering	Weston, OR
kW Engineering, Inc.	Salt Lake City, UT
Lincus Incorporated	Tempe, AZ
Nexant, Incorporated	Salt Lake City, UT
QEI Energy Management, Inc.	Beaverton, OR
RM Energy Consulting	Pleasant Grove, UT
Rick Rumsey, LLC	Ammon, ID
SBW Consulting, Inc.	Bellevue, WA
Solarc Architecture & Engineering, Inc.	Eugene, OR
Triple Point Energy	Portland, OR

[31] Some trade allies may participate in more than one technology so the count of unique participating firms is less than the total count provided above.

Evaluation

During 2014, an independent third-party process and impact evaluation of the Company's non-residential programs for program years 2012-2013 was in the process of being completed. The results of this evaluation work will be available in 2015.

COMMUNICATIONS, OUTREACH AND EDUCATION

wattsmart is an overarching energy efficiency campaign with the overall goal to engage customers in reducing their energy usage through behavioral changes, and pointing them to the programs and information to help them do it. “Rocky Mountain Power wants to help you save energy and money” is the key message, and the Company utilizes earned media, customer communications, education and outreach, advertising and program specific marketing to communicate the value of energy efficiency, provide information regarding low-cost, no-cost energy efficiency measures and to educate customers on the availability of programs, services and incentives.

A summary of 2014 (Year 4) “Utah Demand-side Management Outreach and Communications Campaign” in included in Appendix 8.

EVALUATIONS

Evaluations are performed by independent external evaluators to validate energy and demand savings derived from the Company's energy efficiency programs. Industry best practices are adopted by the Company with regards to principles of operation, methodologies, evaluation methods, definitions of terms, and protocols including those outlined in the National Action Plan for Energy Efficiency Program Impact Evaluation and the California Evaluation Framework guides.

A component of the overall evaluation efforts is aimed at the reasonable verification of installations of energy efficient measures and associated documentation through review of documentation, surveys and/or ongoing onsite inspections.

Verification of the potential to achieve savings involves regular inspection and commissioning of equipment. The Company engages in programmatic verification activities, including inspections, quality assurance reviews, and tracking checks and balances as part of routine program implementation and may rely upon these practices in the verification of installation information for the purposes of savings verifications in advance of more formal impact evaluation results. A summary of the inspection process is included in Appendix 4.

Evaluation, measurement and verification tasks are segregated within the Company organization to ensure they are performed and managed by personnel who are not directly responsible for program management.

Information on evaluation activities completed or in progress during 2014 is summarized in the chart below. Summary of the recommendations are provided in Appendix 6. The evaluation report is available at www.pacificorp.com/es/dsm/utah.html

Program / Activities	Years Evaluated	Evaluator	Progress Status
Home Energy Savings	2011 – 2012	The Cadmus Group	Completed
Home Energy Reports	8/1/2012 - 1/31/2014	Navigant Consulting	Completed
Low-Income	2010 – 2012	Smith and Lehmann	Completed
FinAnswer Express	2012 – 2013	Navigant Consulting	Completed Q2 of 2015
Recommissioning	2012 – 2013	Navigant Consulting	Completed Q2 of 2015
Self-Direction Credit	2012 – 2013	Navigant Consulting	Completed Q2 of 2015
Energy FinAnswer	2012 – 2013	Navigant Consulting	Completed Q2 of 2015