



Wyoming Annual Demand-Side Management Report

January 1, 2016 – December 31, 2016

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TABLE OF CONTENTS

List of Abbreviations and Acronyms	4
Executive Summary	5
Regulatory History	7
DSM Expenditures	9
Planning Process	12
Energy Efficiency Programs	15
Residential Programs	17
Home Energy Savings	18
Home Energy Reports	21
Refrigerator Recycling	23
Low Income Weatherization	25
Non-Residential Energy Efficiency Program	27
Communications, Outreach and Education	34
Evaluations	34

List of Abbreviations and Acronyms

ARCA	Appliance Recycling Centers of America
CCS	Council of Community Services
CFL	Compact Fluorescent Lighting
DSM	Demand-Side Management
GWh	Gigawatt-hour
HVAC	Heating, ventilation and air conditioning
IRP	Integrated Resource Plan
kWh	Kilowatt hour
LED	Lighting-emitting Diode
PCT	Participant Cost Test
PTRC	Total Resource Cost Test with 10 percent adder
RIM	Ratepayer Impact Measure Test
Schedule 191	Schedule 191 Customer Efficiency Service Charges
TRC	Total Resource Cost Test
UCT	Utility Cost Test
VFD	Variable Frequency Drive
WFS	Wyoming Department of Family Services
WWS	Wyoming Weatherization Services

EXECUTIVE SUMMARY

Rocky Mountain Power (“Company”) offers its customers energy efficiency services and incentives through programs targeting residential, agricultural, commercial and industrial customers. In its Order in Docket No. 20000-264-EA-06 (Record No. 10960), the Wyoming Public Service Commission (“Commission”) approved a Stipulation between Rocky Mountain Power, Office of Consumer Advocates, Wyoming Industrial Energy Consumers, and Southwest Energy Efficiency Project, and directed the Company to file reports addressing the performance of Wyoming demand-side management (“DSM”) programs through 2012. In continuing with the standard, the Company has completed an annual report for 2016.

The report provides details on program results, activities, expenditures, and Customer Efficiency Service Charge (“Schedule 191”) revenue from January 1, 2016 through December 31, 2016. The Company, on behalf of its customers, invested \$8.5 million in energy efficiency resource acquisition in 2016. The investment yielded approximately 43.3 gigawatt-hours (“GWh”) in first year energy savings¹ and approximately 5.5 megawatts (at generation) of energy efficiency savings related to capacity reductions.² Net benefits based on the projected value of the energy savings³ over the life of the individual measures are estimated at \$10 million.

The energy efficiency portfolio was cost effective based on four of the five standard cost effectiveness tests for the reporting period. The ratepayer impact test was less than 1.0 indicating near-term upward pressure was placed on the price per kilowatt-hour (“kWh”) given a reduction in sales. Table 1 provides the cost effectiveness of the energy efficiency program portfolio.

Table 1 - Cost Effectiveness for the Energy Efficiency Portfolio

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
Total Resource Cost (“PTRC”) Test plus 10 percent ⁴	1.49	\$6,715,383
Total Resource Cost Test (“TRC”) ⁵	1.35	\$4,860,263
Utility Cost Test (“UCT”) ⁶	2.19	\$10,064,239
Participant Cost Test (“PCT”) ⁷	2.46	\$20,308,271
Ratepayer Impact Cost Test (“RIM”) ⁸	0.63	(\$10,833,377)

¹ Reported savings at generation.

² See Planning Section for explanation on how the capacity contribution savings values are calculated.

³ See Table 1 – Utility Cost Net Benefits.

⁴ 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.

⁵ 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.

⁶ The UCT provides a benefit/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.

⁷ The PCT provides a comparison of the costs and benefits of the participant to taking the energy efficiency action.

⁸ 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 lower revenues putting upward pressure on rates as the remaining fixed costs are spread over fewer kilowatt-hours.

Portfolio-level cost effectiveness includes portfolio costs such as the Potential Assessment, the Company's DSM tracking systems and evaluations. Sector-level cost effectiveness, reported in the Residential and Non-Residential sections of this document, includes sector-specific expenditures including incentives, marketing, evaluations, program administrative and development expenditures. Appendix 1 provides 2016 cost effectiveness performance in greater detail.

REGULATORY HISTORY

During the 2016 reporting period, the Company filed numerous compliance filings, updates and requests with the Commission in support of Company DSM programs. The following is a list of those activities:

- January 15, 2016, in Docket No. 20000-488-ET-16, the Company filed to make changes to its *Low Income Weatherization* program. The modifications added LED offerings and updated measure descriptions related to replacement windows, attic ventilation, pipe insulation, thermostats, and refrigerators. The Commission approved these modifications in its order issued April 7, 2016, with an effective date of April 15, 2016.
- January 28, 2016, in Docket No. 20000-490-ET-16, the Company filed to cancel the *See ya later, refrigerator* program administered through Electric Service Schedule 117 due to the program not being cost-effective. The Commission approved the Company's request in its order issued April 12, 2016, with an effective date of April 15, 2016.
- February 5, 2016, in Docket No. 20000-264-EA-06, the Company filed education and promotional materials that were used to educate the public concerning energy efficiency and promote DSM programs from October 1, 2015 – December 31, 2015.
- February 5, 2016, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status reports with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- May 2, 2016, in Docket No. 20000-264-EA-06, the Company filed education and promotional materials that were used to educate the public concerning energy efficiency and promote DSM programs from January 1, 2016 – March 31, 2016.
- May 2, 2016, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status reports with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- May 31, 2016, in Docket No. 20000-264-EA-06, the Company filed a notice with a web link to where the 2013-2014 *See ya later, refrigerator* Program Evaluation was posted on the Company's website.
- July 29, 2016, in Docket No. 20000-500-ET-16, the Company filed to make changes to its *wattsmart* Business program. The modifications adjusted all prescriptive measure incentives to be maximum "up to" amounts, excluded lighting energy efficiency projects from Bill Credit eligibility, changed retrofit lighting incentives for all technologies to a pay-for-savings rate – excluding re-lamp measures, reduced lighting incentives to reflect changes in the LED market, restructured the enhanced incentive for small business offer to a small business direct installation offer, clarified LED categories for midstream measures and added tubular LEDs, and revised program qualifying HVAC specifications. The Commission approved these modifications in its order issued October 10, 2016, with an effective date of November 1, 2016.

- August 3, 2016, in Docket No. 20000-264-EA-06, the Company filed education and promotional materials that were used to educate the public concerning energy efficiency and promote DSM programs from April 1, 2016 – June 30, 2016.
- August 3, 2016, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status reports with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- August 16, 2016, in Docket No. 20000-264-EA-06, the Wyoming 2015 Annual DSM Report and appendices was filed.
- September 7, 2016, in Docket No. 502-EA-16, the Company filed to adjust the Schedule 191 Category 2 and 3 surcharge rates. A stipulation was filed in this matter March 2, 2017, which the Commission approved via bench order during the hearing held March 9, 2017, effective April 1, 2017.
- November 11, 2016, in Docket No. 20000-264-EA-06, the Company filed education and promotional materials that were used to educate the public concerning energy efficiency and promote DSM programs from July 1, 2016 – August 31, 2016.
- November 11, 2016, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status reports with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- November 11, 2016, in Docket No. 20000-264-EA-06, the Company filed a notice with a web link to where the 2013-2014 *Home Energy Savings* Program Evaluation was posted on the Company's website.
- December 7, 2016, in Docket No. 20000-264-EA-06, the Company filed with the Commission for informational purposes a 2017 promotional plan to educate the public concerning energy efficiency and to promote its demand-side management programs.

Advisory Group & Wyoming Staff Activities

The Company held formal presentations on the following matters with the DSM Advisory Group and Commission Staff:

September 7, 2016

- Reviewed the 2015 Annual DSM Report;
- Reviewed the Class 2 DSM Decrement Study;
- Provided an update on the Commercial and Industrial Market; and
- Discussed the Schedule 191 Surcharge Analysis.

DSM EXPENDITURES

Customer Efficiency Service Charge

In Docket No. 20000-264-EA-06 (Record No. 10960), the Commission approved the recovery of energy efficiency expenditures through Schedule 191. This charge appears as a line item on customer bills. The Company books eligible DSM energy efficiency expenditures as incurred to the balancing account for the appropriate customer category. The unique surcharges for each customer classification are defined below:

Category 1 (Residential) – Residential Schedules 2 and 18

Category 2 (Small Commercial and Industrial) – Schedules 25, 28, 40, 210 and all lighting schedules

Category 3 (Large Commercial and Industrial) – Schedule 33, 46 and 48T

Table 2, Table 3 and Table 4 show Schedule 191 balances by category as of December 31, 2016.

Table 2
Schedule 191 Balance - Category 1 (Residential)

Month	Monthly Program Cost	Monthly Net Accrued Cost*	Rate Recovery	Carrying Charge	Cash Basis Accumulated Balance	Accrual Basis Accumulated Balance
December 2015						\$ (64,679)
Jan-16	\$ 31,873	\$ 70,490	\$ (194,540)	\$ (526)	\$ (442,708)	\$ (157,383)
Feb-16	\$ 139,320	\$ (31,261)	\$ (161,054)	\$ (661)	\$ (465,103)	\$ (211,040)
Mar-16	\$ 96,966	\$ 50,004	\$ (133,648)	\$ (705)	\$ (502,489)	\$ (198,423)
Apr-16	\$ 95,651	\$ (6,871)	\$ (124,604)	\$ (754)	\$ (532,196)	\$ (235,000)
May-16	\$ 86,045	\$ 4,833	\$ (113,640)	\$ (796)	\$ (560,587)	\$ (258,559)
Jun-16	\$ 230,583	\$ (92,185)	\$ (111,742)	\$ (731)	\$ (442,477)	\$ (232,634)
Jul-16	\$ 53,015	\$ (34,251)	\$ (128,220)	\$ (700)	\$ (518,382)	\$ (342,790)
Aug-16	\$ 121,170	\$ (56,347)	\$ (136,504)	\$ (767)	\$ (534,484)	\$ (415,238)
Sep-16	\$ 39,081	\$ (79,646)	\$ (111,878)	\$ (833)	\$ (608,113)	\$ (568,514)
Oct-16	\$ 34,687	\$ 7,981	\$ (101,885)	\$ (936)	\$ (676,248)	\$ (628,668)
Nov-16	\$ 65,783	\$ 12,450	\$ (111,820)	\$ (1,020)	\$ (723,305)	\$ (663,275)
Dec-16	\$ 121,869	\$ 1,112	\$ (166,900)	\$ (1,088)	\$ (769,424)	\$ (708,281)
2016 Totals	\$ 1,116,042	\$ (153,692)	\$ (1,596,435)	\$ (9,517)		

*December 2016 Total Accrual \$ 61,143

Table 3
Schedule 191 Balance - Category 2 (Small Commercial and Industrial)

Month	Monthly Program Cost	Monthly Net Accrued Cost*	Rate Recovery	Carrying Charge	Cash Basis Accumulated Balance	Accrual Basis Accumulated Balance
December 2015						\$ 206,306
Jan-16	\$ 154,112	\$ (5,803)	\$ (141,573)	\$ 123	\$ 90,595	\$ 213,165
Feb-16	\$ 320,351	\$ (12,137)	\$ (132,865)	\$ 269	\$ 278,350	\$ 388,783
Mar-16	\$ 144,644	\$ 47,267	\$ (126,912)	\$ 419	\$ 296,501	\$ 454,201
Apr-16	\$ 63,215	\$ 247,960	\$ (122,319)	\$ 389	\$ 237,786	\$ 643,446
May-16	\$ 334,469	\$ (224,273)	\$ (122,329)	\$ 501	\$ 450,426	\$ 631,813
Jun-16	\$ 315,235	\$ 180,288	\$ (127,758)	\$ 794	\$ 638,697	\$ 1,000,372
Jul-16	\$ 322,823	\$ (96,716)	\$ (136,016)	\$ 1,068	\$ 826,572	\$ 1,091,531
Aug-16	\$ 375,910	\$ (66,356)	\$ (137,509)	\$ 1,379	\$ 1,066,353	\$ 1,264,956
Sep-16	\$ 286,016	\$ (89,535)	\$ (128,969)	\$ 1,670	\$ 1,225,069	\$ 1,334,137
Oct-16	\$ 107,950	\$ 115,692	\$ (125,814)	\$ 1,774	\$ 1,208,979	\$ 1,433,739
Nov-16	\$ 215,436	\$ 37,357	\$ (119,399)	\$ 1,833	\$ 1,306,850	\$ 1,568,966
Dec-16	\$ 387,160	\$ (28,160)	\$ (134,052)	\$ 2,090	\$ 1,562,047	\$ 1,796,003
2016 Totals	\$ 3,027,320	\$ 105,584	\$ (1,555,516)	\$ 12,309		

*December 2016 Total Accrual \$ 233,957

Table 4
Schedule 191 Balance - Category 3 (Large Commercial and Industrial)

Month	Monthly Program Cost	Monthly Net Accrued Cost*	Rate Recovery	Carrying Charge	Cash Basis Accumulated Balance	Accrual Basis Accumulated Balance
December 2015						\$ 163,896
Jan-16	\$ 199,001	\$ (75,322)	\$ (147,069)	\$ 29	\$ 46,120	\$ 140,535
Feb-16	\$ 147,258	\$ 13,906	\$ (141,655)	\$ 71	\$ 51,794	\$ 160,114
Mar-16	\$ 129,539	\$ (11,784)	\$ (140,393)	\$ 68	\$ 41,008	\$ 137,545
Apr-16	\$ 126,918	\$ 25,619	\$ (139,717)	\$ 50	\$ 28,259	\$ 150,415
May-16	\$ 182,233	\$ 70,357	\$ (133,372)	\$ 77	\$ 77,197	\$ 269,710
Jun-16	\$ 183,960	\$ (42,541)	\$ (138,747)	\$ 146	\$ 122,556	\$ 272,527
Jul-16	\$ 162,818	\$ (23,088)	\$ (164,422)	\$ 178	\$ 121,130	\$ 248,013
Aug-16	\$ 428,001	\$ 159,045	\$ (111,207)	\$ 408	\$ 438,332	\$ 724,261
Sep-16	\$ 303,110	\$ (27,282)	\$ (144,956)	\$ 755	\$ 597,242	\$ 855,888
Oct-16	\$ 243,303	\$ 66,424	\$ (152,337)	\$ 937	\$ 689,145	\$ 1,014,215
Nov-16	\$ 290,495	\$ 4,391	\$ (159,419)	\$ 1,101	\$ 821,322	\$ 1,150,783
Dec-16	\$ 1,635,088	\$ (19,377)	\$ (133,815)	\$ 2,292	\$ 2,324,887	\$ 2,634,972
2016 Totals	\$ 4,031,724	\$ 140,348	\$ (1,707,108)	\$ 6,112		

*December 2016 Total Accrual \$ 310,085

Column Explanations:

Monthly Program Costs: Monthly expenditures for all energy efficiency program activities.

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

Rate Recovery: Revenue collected through Schedule 191.

Carrying Charge: Monthly carrying charge is based on "Cash Basis Accumulated Balance" of the account. The rate is a reciprocal interest charge with the Schedule 300 Customer Deposit Interest Rate. For 2015, the rate was 1.68 percent.

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

Accrual Basis 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.⁹ The plan presents a framework of future actions to ensure the Company continues to provide reliable and 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 repeatable and predictable voluntary actions by customers to manage the energy use at their facility or home, 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 signals.
- Class 4 DSM (Resources from non-incented behavioral-based savings achieved through broad energy education and communication efforts) – Energy and/or capacity reduction typically achieved from voluntary actions taken by customers to reduce costs or benefit the environment through education and communication.

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 (Potential Assessment) is conducted to estimate the magnitude, timing and cost of energy efficiency and peak management resources.¹⁰ The main focus of the Potential 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 energy efficiency potential identified in the 2015 Potential Assessment for Wyoming is 1,790

⁹ Information on the Company’s integrated resource planning process can be found at the following address:

<http://www.pacificorp.com/es/irp.html>

¹⁰ PacifiCorp Demand-Side Resource Potential Assessment For 2015-2034, <http://www.pacificorp.com/es/dsm.html>.

GWh by 2034, or 14 percent of projected baseline loads.¹¹ 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 Wyoming by sector is shown in Table 5. The 2015 Potential Assessment indicates that approximately 16 percent of the achievable technical potential for the Company, excluding Oregon,¹² is available within its Wyoming service area.¹³

Table 5
Wyoming Energy Efficiency Achievable Technical Potential by Sector

Sector	Cumulative GWh in 2034	Percent of Baseline Sales
Residential	247	21%
Commercial	613	30%
Industrial	925	10%
Irrigation	2	10%
Street Lighting	3	28%

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 Potential 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.

Estimated Peak Contributions

The reported capacity reduction of 5.5 MW (at generation) for energy efficiency programs during 2016 represents the estimated MW impact of the energy efficiency portfolio during PacifiCorp's system peak period. An energy-to-capacity conversion factor developed from Class 2 DSM selections in the 2015 IRP is used to translate 2016 energy savings to estimated demand reduction during the system peak. The utilization of this factor in the MW calculation assumes that the energy efficiency resources acquired through the Company's programs have the same average load profile as those energy efficiency resources selected in the 2015 IRP. Utilization of this factor in determining the MW contribution of energy efficiency programs for 2016 is detailed in Table 6 below.

¹¹ Ibid, Volume 2, page 4-2.

¹² Oregon energy efficiency potential assessments are performed by the Energy Trust of Oregon.

¹³ Volume 1, Table 2-1, PacifiCorp Demand-Side Resource Potential Assessment for 2015-2034.

Table 6
Estimated Peak Contribution

Description	Value
First year energy efficiency program MWh savings acquired during 2016	43,333
Conversion factor: Coincident MW/MWh	0.00013
Estimated coincident peak MW contribution of 2016 Wyoming energy efficiency acquisitions	5.5

ENERGY EFFICIENCY PROGRAMS

Energy efficiency programs are offered to all major customer sectors: residential, commercial, industrial, and agricultural. The overall energy efficiency portfolio included four programs: *Home Energy Savings*, *Home Energy Reports*, *Low Income Weatherization*, and *Non-Residential Energy Efficiency (wattsmart Business)*. In addition to the energy efficiency programs, the Company invests in outreach and communications to make customers aware of the energy efficiency program services and incentives available, promotes the efficient use of electricity and improves program performance.

Program savings and cost results for 2016 are provided in Table 7.

Table 7
Wyoming Results January 1, 2016 – December 31, 2016¹⁴

Category and Program	kWh/Yr Savings (@ site)	kWh/Yr Savings (@ generator)	Program Expenditures
Category 1 - Residential			
Low Income Weatherization	20,147	22,063	\$ 15,836
Refrigerator Recycling	6,408	7,017	\$ 2,345
Home Energy Reporting	4,672,620	5,117,033	\$ 126,517
Home Energy Savings	2,106,968	2,307,361	\$ 665,239
Total Category 1	6,806,143	7,453,475	\$ 809,937
Category 2 - Agricultural, Commercial & Industrial			
watt smart Business Commercial	9,926,725	10,810,302	\$ 2,597,170
watt smart Business Industrial	1,070,939	1,131,029	\$ 284,841
watt smart Business Irrigation	37,819	41,327	\$ 10,087
Total Category 2	11,035,483	11,982,659	\$ 2,892,098
Category 3 - Commercial & Industrial			
watt smart Business Commercial	2,987,196	3,253,086	\$ 586,871
watt smart Business Industrial	19,529,258	20,625,045	\$ 3,740,755
watt smart Business Irrigation	16,778	18,334	\$ 2,926
Total Category 3	22,533,232	23,896,465	\$ 4,330,552
Total Energy Efficiency (Categories 1, 2 and 3)	40,374,857	43,332,599	\$ 8,032,587
Portfolio EM&V, DSM Central, Measure Library and Potential Study - Cat 1			\$ 122,891
Portfolio EM&V, DSM Central, Measure Library and Potential Study - Cat 2			\$ 61,716
Portfolio EM&V, DSM Central, Measure Library and Potential Study - Cat 3			\$ 81,410
Outreach & Communication - Cat 1			\$ 91,929
Outreach & Communication - Cat 2			\$ 49,938
Outreach & Communication - Cat 3			\$ 46,482
Total Wyoming 2016 Expenditures			\$ 8,486,954

¹⁴ The values at generation include line losses between the customer site and the generation source. The Company's line losses by sector for 2016 are 9.51 percent for residential, 8.9 percent for commercial, 5.61 percent for industrial and 9.28 percent for irrigation.

The Company, working with its third-party program delivery administrators,¹⁵ collaborated with a number of retailers, contractors and vendors in the delivery of its energy efficiency programs in Wyoming. Table 8 lists the energy efficiency infrastructure. See Appendix 2 for a complete of *Home Energy Savings* participating retailers and Appendix 3 for the non-residential energy efficiency alliance.

Table 8
Energy Efficiency Infrastructure

Sector	Type	No.
Residential	Downstream Retailers	31
	HVAC ¹⁶ Trade Allies	9
	Lighting Retailers – Mid/Upstream	33
	Weatherization Trade Allies	6
	Low Income Agencies	2
Commercial and Industrial	Lighting Trade Allies	128
	HVAC Trade Allies	43
	Motors/VFD Trade Allies	59

¹⁵ See program specific information for backgrounds on third-party administrators.

¹⁶ Heating, ventilation and air conditioning

RESIDENTIAL PROGRAMS

The residential energy efficiency portfolio was comprised of three programs including *Home Energy Savings*, *Home Energy Reports* and *Low Income Weatherization*. The residential portfolio was cost effective from the TRC perspective when excluding residential portfolio level costs, but was not cost effective when these costs were included. See Table 9 below. At a program level, the *Home Energy Reports* and *Low Income Weatherization* were cost effective from the TRC perspective, but *Home Energy Savings* was not cost effective.

Table 9
Cost Effectiveness for Residential Portfolio

Benefit/Cost Test	Includes Portfolio Costs		Excludes Portfolio Costs	
	Benefit/Cost Ratio	Net Benefits	Benefit/Cost Ratio	Net Benefits
PTRC	0.89	(\$118,487)	1.11	\$96,332
TRC	0.81	(\$203,641)	1.01	\$11,179
UCT	0.83	(\$173,220)	1.05	\$41,599
PCT	4.72	\$1,937,245	4.72	\$1,937,245
RIM	0.32	(\$1,773,345)	0.35	(\$1,558,525)

Residential savings decreased by 33 percent from 2015. The decrease was driven by the elimination of the *Refrigerator Recycling* program in early 2016 and decreased participation in the *Home Energy Savings* program. Individual program performance, program management, program infrastructure and cost effectiveness is provided on the following pages.

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 for residential customers under Electric Service Schedules 2 or 18. Landlords who own property where the tenant is billed under Electric Service Schedules 2 or 18 also qualify for the program.

Home Energy Savings was not cost effectiveness as shown in Table 10. The Company is redesigning the program and will most likely eliminate measures that are not cost effective or those that have low participation. To assist in increasing participation, the Company is re-evaluating the trade ally network. See Appendix 1 for details on cost effectiveness.

Table 10
Cost Effectiveness for Home Energy Savings

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	0.91	(\$65,586)
TRC	0.82	(\$122,865)
UCT	0.86	(\$92,445)
PCT	3.59	\$1,350,660
RIM	0.34	(\$1,118,094)

Program participation by measure category is provided in Table 11.

Table 11
Eligible Program Measures (Units)¹⁷

Measure Category	Total kWh/Yr Savings	Total Incentive	Total Quantity
Appliances	16,060	\$ 7,470	147
Building Shell	21,936	\$ 6,272	19,177 (sq ft)
Energy Kits	270,645	\$ 11,397	753
HVAC	109,084	\$ 36,800	90
Lighting	1,682,066	\$ 205,165	85,662
Water Heating	7,176	\$ 1,200	4
Grand Total	2,106,968	\$ 268,304	105,833

¹⁷ Units are dependent on the type of measure (i.e. insulation is in square feet, appliances by unit count, CFLs are total bulbs count, etc.).

Program savings decreased in 2016 from 2015 and was primarily due to a reduction in compact fluorescent lighting (“CFL”). The largest participating retail chain in the Company’s Wyoming service territory moved away from CFL products early in 2016, contributing to a decrease in CFL availability. Secondly, the primary manufacturer of light emitting diode (“LED”) for independent retailers in the service territory was slow to adapt to static incentive levels for LEDs during the program year.

Program Management

The program manager who is responsible for the program in Wyoming is also responsible for the *Home Energy Savings* program in Idaho and 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, who is responsible for:

- 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.
- Managing savings acquisition to targets within budget.
- Continual improvement of program operations and customer satisfaction.
- 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.

The *Home Energy Savings* program administration contract for all states expired in early 2016 and a new contract was established on April 1, 2016.

Infrastructure

In 2016, there were 79 participating (upstream and downstream) retailer and trade ally participants in the program. The list of participating retailers and trade allies by delivery channel and measure is provided in Appendix 2. Some retailers may have participated in more than one delivery type, so the count of unique participating firms may be less than the total count by delivery type.

Program Changes

There were no significant program changes during 2016. However, in November of 2016, a full review of the program began and anticipated changes are planned to be effective in 2017.

Evaluations

A process and impact evaluation for program years 2013-2014 was completed and published in 2016. Key findings include:

- Non-lighting participants were made aware of the program primarily through retailers and bill inserts.
- The program had high satisfaction from non-lighting participants at 98 percent.
- Customers participated in the program to reduce energy costs, replace broken equipment and to increase the comfort of their home.
- Customers expressed higher levels of satisfaction with LED lighting over CFLs.

A complete list of program evaluation recommendations and the Company's response is provided in Appendix 5.

HOME ENERGY REPORTS

Home Energy Reports is a behavioral program designed to decrease participant energy usage by providing comparative, and competitive, energy usage data for similar homes located in the same geographical area. Additionally, the report provides the participant with information on how to decrease their energy usage. Equipped with this information, participants can modify behavior and/or make structural equipment, lighting or appliance modifications to reduce their overall electric energy consumption.

In 2016, the program achieved total savings of 4,672,620 kWh (at site). Program cost effectiveness is provided in Table 12. See Appendix 1 for details on cost effectiveness.

Table 12
Cost Effectiveness for Home Energy Reports

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	2.25	\$158,233
TRC	2.05	\$132,347
UCT	2.05	\$132,347
PCT ¹⁸	N/A	N/A
RIM	0.39	(\$404,263)

Reports were initially provided to approximately 15,300 customers in January 2016; however this number decreases over time due to customer attrition related to general customer churn (customer move-outs) and customers requesting to be removed from the program. Since inception of the program, only 1.1 percent of customers have requested to be removed from the program. As of December 2016, 13,880 customers were active participants of *Home Energy Reports*. In 2016, 48 customers opted out of the program.

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. Approximately 7,700 customers currently receive email reports. In addition, all Wyoming customers (including non-participants) have access to the web portal which contains other benefits 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 in their home.

Program Management

The program manager who is responsible for the *Home Energy Reports* program in Wyoming is also responsible for the program in Idaho and Utah as well as *Irrigation Load Control* in Idaho and Utah and the *Cool Keeper* program in Utah. For each program and in each state the program

¹⁸ Participants in *Home Energy Reports* do not incur costs.

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 Oracle. Oracle's software creates individualized energy reports for utility customers that analyze their energy usage and offers recommendations on how to save energy and money by making small changes to their energy consumption. The Company contracts with Oracle to provide energy savings, software services, and printing and delivery of energy reports to customers.

Oracle is responsible for the following:

- Selecting Qualifying Customers – Oracle 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 – Oracle conducts statistical analysis to perform pattern recognition in order to derive actionable insights to selected customers. Oracle uses information about customers' homes (e.g., size, heat type, home type) to find similar homes for comparison.
- Energy Report Delivery – By mail or email.
- Web Portal Design and Support – Oracle operates and maintains a customer Web portal that participants may visit for additional information about their energy usage and saving opportunities.

Evaluation

A process and impact evaluation will be published in 2017.

REFRIGERATOR RECYCLING

The *Refrigerator Recycling* program, also known as “*See ya later, refrigerator®*,” was designed to decrease electricity use through the voluntary removal and recycling of inefficient refrigerators and freezers. The program was available to residential, business customers and retailers.

On December 3, 2015, the Company filed to suspend the program in Docket No. 20000-485-ET-15 due to the program administrator, JACO Environmental, effectively going out of business and thus unable to administer the program. Suspension of the program was granted by the Commission during the open meeting held December 29, 2015, with an effective date the same day. The Commission’s final order was issued January 21, 2016.

During December 2015, the Company began an expedited sole source procurement process to contract for remedial or “clean-up” appliance recycling services for customers that had signed up for the program, but were unable to be serviced due to JACO going out of business. A contract with Appliance Recycling Centers of America (“ARCA”) was executed December 30, 2015, and customer outreach began in January 2016. ARCA contacted customers who had pick-ups scheduled with JACO that were canceled in late November and December 2015 and, if the customer was still interested, offer the same removal service and incentive. Clean-up services rendered by ARCA were conducted through March 2016.

On January 28, 2016, the Company filed to cancel the program in Docket No. 20000-490-ET-16 due to the inability to administer the program cost effectively. The Commission granted the Company’s request to cancel the program in its order issued April 12, 2016, with an effective date of April 15, 2016.

Customer participation in ARCA’s clean-up services by measure is provided in Table 13.

Table 13
Clean-up Services Participation – Measures (Units)

Measures	Total kWh/Yr Savings @ Site	Measure Quantity
Freezer Recycling	1,888	2
Refrigerator Recycling	4,520	4
Total	6,408	6

Program level cost effectiveness was not calculated due to its cancellation. However, the minimal expenditures and savings are included in the residential level and portfolio level cost effectiveness calculations.

Evaluation

A process and impact evaluation for program years 2013 – 2014 was published in April 2016. Key findings include:

- High program satisfaction with participants.
- High levels of freeridership contributed to a net-to-gross of 43 percent. Most participants said they would have permanently disposed their unit without the program.
- Participants learned of the program primarily through bill inserts, word-of-mouth, retailer and television.
- The program was not cost effective from any of the cost effectiveness tests.

A complete list of program evaluation recommendations and the Company's response is provided in Appendix 5.

LOW INCOME WEATHERIZATION

The *Low Income Weatherization* program is designed to leverage funds with state and federal grants so that the energy efficiency improvements provided can be delivered to income eligible households at no cost.

In 2016, the program achieved savings of 20,147 kWh and served 9 homes. The measures installed through the *Low Income Weatherization* program are limited to those that reduce electricity use in participant's homes. Program cost effectiveness is provided in Table 14. See Appendix 1 for details on cost effectiveness.

Table 14
Cost Effectiveness for Low Income Weatherization

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	1.35	\$5,536
TRC	1.23	\$3,593
UCT	1.23	\$3,593
PCT ¹⁹	N/A	N/A
RIM	0.37	(\$33,138)

Total homes treated under the program in 2016, as well as the type and frequency of specific energy efficiency measures installed in each home, is provided in Table 15.

Table 15
Eligible Program Measures (Units)

Participation – Total # of Completed/Treated Homes	9
Number of Homes Receiving Specific Measures	#
Ceiling Insulation	5
CFLs	8
Duct Insulation	1
Floor Insulation	6
Ground Cover	2
Low Flow Showerheads	2
Replacement Refrigerators	1
Replacement Windows	3
Thermal Doors	46
Wall Insulation	1
Water Pipe Insulation and Sealing	2
Weather-stripping	7

¹⁹ Participants in *Low Income Weatherization* do not incur costs.

Program Management

The program manager overseeing program activity in Wyoming is responsible for the program in California, Idaho, Utah and Washington; energy assistance programs in Wyoming, California, Idaho, Oregon, Utah and Washington; and income eligible bill discount programs in California, Utah and Washington. For each program and in each state the program manager is responsible for the cost effectiveness of the program, partnerships and agreements in place with local 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 tariff.

Program Administration

The Company has contracted with two agencies to provide low income weatherization services throughout the state of Wyoming. These include Council of Community Services (“CCS”) and Wyoming Weatherization Services (“WWS”). The agencies subcontract with the Wyoming Department of Family Services (“WFS”) to provide low income weatherization services with grants WFS received from state and federal government sources. Company funding of 50 percent of the cost of approved measures is leveraged by the agencies with these government grants so that the services are at no cost to participating households.

By contract with the Company, CCS and WWS are responsible for the following:

- Income Verification – Agencies determine if participants are income eligible based on WFS guidelines. Household’s interested in obtaining weatherization services apply through the WFS’s Low Income Energy Assistance Program Application. The current income guidelines can be viewed on page 9 of the LIEAP Application at <https://sites.google.com/a/wyo.gov/dfsweb/economic-assistance/lieap>.
- Energy Audit – Agencies complete a United States Department of Energy approved audit 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 measures listed in Schedule 118.
- Post Inspections – Agencies inspect 100 percent of completed homes and WFS randomly inspect 5 - 10 percent for verification of services. See Appendix 4 for verification summary.
- Billing Notification - Agencies are required to submit a billing to Company within 60 days after job completion. A homeowner agreement and invoice form indicating the measures installed and associated cost is submitted on each completed home.

Evaluation

A process and impact evaluation is anticipated to be published in 2017.

Non-Residential Energy Efficiency Program

The commercial, industrial and agricultural energy efficiency program portfolio is offered through a single Non-Residential Energy Efficiency program called *wattsmart* Business. The *wattsmart* Business program is intended to maximize the efficient use of electricity for new and existing non-residential customers through the installation of energy efficiency measures and energy management protocols. Qualifying measures include any measures which, when implemented in an eligible facility, result in verifiable electric energy efficient improvements.

The Non-Residential Portfolio was cost effective with a calculated TRC of 1.28. Program performance results for 2016 are provided in Table 16 below.

Table 16
Program Cost Effectiveness

Benefit/Cost Test	Includes Portfolio Costs		Excludes Portfolio Costs	
	Benefit/Cost Ratio	Net Benefits	Benefit/Cost Ratio	Net Benefits
PTRC	1.54	\$6,833,870	1.57	\$7,073,417
TRC	1.40	\$5,063,904	1.43	\$5,303,452
UCT	2.37	\$10,237,459	2.45	\$10,477,006
PCT	2.37	\$18,371,026	2.37	\$18,371,026
RIM	0.66	(\$9,060,032)	0.67	(\$8,820,485)

Total incentives, savings and completed projects are provided in Table 17 by customer category and sector.

Table 17
Savings by Sector

Sector	Total kWh/Yr @ Site	Total Incentive	Bill Credit	Total kW @ Site	Total # of Projects
Category 2					
Commercial	9,926,725	\$ 1,297,132	\$ -	1,244	368
Irrigation	37,819	\$ 4,654	\$ -	40	7
Industrial	1,070,939	\$ 146,702	\$ -	115	36
Category 2 Total	11,035,483	\$ 1,448,488	\$ -	1,399	411
Category 3					
Commercial	2,987,196	\$ 396,905	\$ -	646	27
Irrigation	16,778	\$ 2,160	\$ -	18	2
Industrial	19,529,258	\$ 1,812,825	\$ 553,683	2,205	44
Category 3 Total	22,533,232	\$ 2,211,890	\$ 553,683	2,869	73
Total WSB	33,568,715	\$ 3,660,378	\$ 553,683	4,268	484

Total *wattsmart* Business savings increased 59 percent, from 21,141,441 kWh in 2015 to 33,568,715 kWh in 2016. When analyzed from the Category perspective, Category 2 had the

largest percentage savings increase due to the downward trend in the price of LED lighting. However, industrial Category 3 had the largest kWh increase due to large projects in the oil and gas market segment.

Table 18 shows results by customer category and measure category.

Table 18
Savings by Category and Measure Category

Measure Category	Total kWh/Yr @ Site	Total Incentive	Bill Credit	Total kW @ Site	Total # of Projects
Category 2					
Building Shell	8,370	\$ 3,647	\$ -	3	1
Compressed Air	174,384	\$ 5,402	\$ -	-	1
Food Service Equipment	88,090	\$ 6,094	\$ -	14	4
HVAC	763,160	\$ 67,136	\$ -	182	13
Irrigation	37,819	\$ 4,654	\$ -	40	7
Lighting	9,624,524	\$ 1,317,559	\$ -	1,099	346
Motors	194,627	\$ 21,370	\$ -	43	38
Refrigeration	144,509	\$ 22,626	\$ -	19	1
Total Category 2	11,035,483	\$ 1,448,488	\$ -	1,399	411
Category 3					
Compressed Air	474,000	\$ 73,626	\$ -	55	1
Electronics	155,427	\$ 7,545	\$ -	33	1
HVAC	187,400	\$ 19,925	\$ -	240	2
Irrigation	16,778	\$ 2,160	\$ -	18	2
Lighting	2,921,870	\$ 409,822	\$ -	391	36
Motors	14,891,111	\$ 1,468,661	\$ 553,683	1,711	20
Energy Project Manager	-	\$ 21,224	\$ -	-	1
Oil & Gas	3,886,646	\$ 208,927	\$ -	421	10
Total Category 3	22,533,232	\$ 2,211,890	\$ 553,683	2,869	73

Services offered through the *wattsmart* Business program include:

- 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.
- Custom Analysis: offers investment-grade energy analysis studies and recommendations 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 projects resulting in a minimum of 1,000,000 kWh per year in energy savings.

Program Management

The program manager overseeing the business energy efficiency program activity in Wyoming is also responsible for the programs in Idaho and Utah. For each state the program manager is 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 delivery channels that are differentiated based upon customer needs: contracted DSM delivery and internal DSM delivery.

Contracted DSM Delivery

The contracted DSM delivery channel generally targets typical opportunities which serves small to medium sized business customers and, to a 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.

Nexant and Cascade are responsible for the following:

- Trade ally engagement – 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, providing program design services, and evaluation and regulatory support upon request.
- Custom analysis and project facilitation for small/medium customer projects.
- Managing savings acquisition to targets within budget.
- Continual improvement of program operations and customer satisfaction.
- Inspections – includes verifying on an on-going basis the installation of measures. A summary of the inspection process is in Appendix 4.

Internal DSM Delivery

The internal DSM delivery channel targets large energy users who generally have multiple opportunities for energy efficiency improvements, such as those that require complex custom analysis. These large projects are administered by internal Company project managers and allows

for a single point of contact to assist customers with their various opportunities. In this delivery channel, project managers are responsible for the following:

- Single point of contact for large customers to assist with their energy efficiency projects.
- Provide customer outreach and education of energy efficiency opportunities.
- Facilitate custom energy efficiency analysis, quality assurance and verification of savings through a pre-contracted group of engineering firms. (See Table 20.)
- Manage engineering firms to ensure program compliance, quality of work and customer satisfaction.
- Manage *wattsmart* Business projects through the whole project lifecycle.

The contracts for the outsourced delivery channel expired June 30, 2016. Following a competitive bid process, these contracts were awarded to Nexant and Cascade for another 3-year term. A third contract, awarded to Willdan Energy Solutions (“Willdan”), will administer the Small Business Direct Installation offer and the Oil and Gas specific offer within the *wattsmart* Business Program. Additional information is included in the Program Changes section.

Infrastructure

Contracted DSM Delivery

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 trade allies who have applied and been approved as participating vendors are posted on the Company website and is included as Appendix 3 to this report. In most cases, customers are not required to select a vendor from these lists to receive an incentive.²⁰

The current count of participating trade allies by technology is in Table 19.

Table 19
Participating Trade Allies²¹

Lighting trade allies	HVAC trade allies	Motor and VFD trade allies
128	43	59

²⁰ Customers receiving Small Business Lighting incentives do need to use an approved contractor that has been selected from a competitive request for bid process.

²¹ Some trade allies may participate in more than one technology so the count of unique participating firms is less than the total count by technology.

Internal DSM Delivery

Given the diversity of the non-residential customers served by the Company, a pre-approved, pre-contracted group of engineering firms are used to perform facility specific energy efficiency analysis, quality assurance and verification services. Each customer's project is directly managed by one of the Company's in-house project managers. The project manager works directly with the customer or through the appropriate Company regional business manager located in Wyoming.

On October 31, 2016 the contracts for engineering firms providing these services expired. Consequently, the Company initiated a request for proposals in early 2016 to obtain contracts with qualified firms to provide these services to customers. Twelve firms were selected. Table 20 lists the engineering firms under contract with the Company both before this bid cycle and afterward.

Table 20
Engineering Firms

Engineering Firm	Main Office Location	Contracted prior to 10/31/16	Contracted after 11/01/16
Abacus Resource Management Company	Beaverton, OR	X	
Brendle Group	Fort Collins, CO	X	X
Cascade Energy Engineering	Cedar Hills, UT	X	X
Compression Engineering Corp	Salt Lake City, UT	X	
Ecova	Portland, OR	X	
EMP2, Inc	Richland, VA	X	X
Energy Resource Integration, LLC	Sausalito, CA	X	X
Energy and Resource Solutions	North Andover, MA	X	
EnerNOC Inc.	Portland, OR	X	
EnSave, Incorporated	Richmond, VT	X	X
ETC Group, Incorporated	Salt Lake City, UT	X	X
Evergreen Consulting Group	Beaverton, OR	X	X
Fazio Engineering	Weston, OR	X	
kW Engineering, Inc.	Salt Lake City, UT	X	X
Lincus Incorporated	Tempe, AZ	X	
Nexant, Incorporated	Salt Lake City, UT	X	X
QEI Energy Management, Inc.	Beaverton, OR	X	
RM Energy Consulting	Pleasant Grove, UT	X	X
Rick Rumsey, LLC	Ammon, ID	X	X
SBW Consulting, Inc.	Bellevue, WA	X	
Solarc Architecture & Engineering, Inc.	Eugene, OR	X	X
Triple Point Energy	Portland, OR	X	

Program Changes

Several notable changes occurred within the *wattsmart* Business Program in 2016 that targeted the small business sector and lighting. These changes include the redesign of the Small Business

Lighting offering to the Small Business Direct Installation offering, and a restructuring of LED lighting incentives.

Small Business Lighting was restructured to Small Business Direct Installation. The program change was designed to expand the program offering from lighting to additional energy efficient measures. The intent is to benefit the small business market segment through offering an incentive, in the form of a direct installation of energy efficient measures, by a certified and/or licensed contractor. This program will target specific geographical areas and is intended to include energy audits of customers' facilities identifying qualifying energy savings measures that could be installed, and the associated costs. Project proposals based on completed audits will be provided that fit within customers' operational and budgetary parameters. Customers can then choose to move forward with the entire project installing all qualifying upgrades, or select a portion of qualifying upgrades from the project proposal. Depending on the size and demographics of each area, the following tactics may be used to engage with small business customers:

- Direct customer events,
- Community fairs, street fairs, and "Main Street" events,
- Geo-targeted pop-up events and workshops,
- City Council and Chamber of Commerce Meetings,
- Trade/Business Association Events,
- Door to door (in person and print),
- Digital (website), and
- Direct-mail, email blasts or print media.

The newly designed Small Business Direct Install offer is structured to increase participation, particularly in rural communities where program participation has historically been lower than urban communities. As mentioned in the Program Administration section, a new outsourced delivery contractor, Willdan, will administer this program.

The Company also restructured LED lighting. LED technology has become the predominant lighting technology in energy efficiency projects, and that trend is anticipated to continue. Long lamp life (30,000 hours+), reduced lifetime maintenance costs, absence of hazardous materials (i.e. mercury), controllability, higher efficacy (lumens/watt) and decreasing costs relative to traditional technologies have contributed to a shift toward using LED products on most energy efficiency projects.

To address the continuing and rapid shift to more efficient LED technologies, the Company revamped the form and value of lighting incentives listed in the lighting retrofits table on the website²². The Company moved away from incenting lighting in technology-specific categories and transitioned to a true pay-for-savings approach. Under the new incentive structure interior, exterior and street/pole lighting are all incentivized at a specific cost per kWh saved, regardless of

²² <https://www.rockymountainpower.net/bus/se/idaho/il/lighting/lighting-retrofits.html>

what type of technology is installed. Lighting incentives were also lowered proportionately due to decreasing costs for LED technology.

Evaluation

The *wattsmart* Business program evaluation for program years 2014-2015 was in progress during 2016. It was published in early 2017 and is available on the Company's website at <http://www.pacificorp.com/es/dsm/wyoming.html>.

COMMUNICATIONS, OUTREACH AND EDUCATION

The Company uses earned media, customer communications, paid media, and program specific media to communicate the value of energy efficiency and provide information regarding low-cost, no-cost energy efficiency measures. The Company endeavors to educate customers on the availability of technical assistance, services and incentives with the overall goal to engage customers in reducing their energy usage.

The Company calls this multi-faceted campaign “wattsmart” and shares a common theme: Rocky Mountain Power wants to help you save money and energy.

Customer Communications

As part of the Company’s regular communications to its customers, newsletters across all customer classes promote energy efficiency initiatives and case studies Inserts and outer envelopes are also used consistently to feature energy efficiency messages and programs. In 2016, the Company also issued two newsletters focused entirely on seasonal energy efficiency information targeted in the fall and spring.

Table 21 shows the communication source and the frequency of the message.

Table 21
Communication Source and Frequency

Communication Source	Frequency of Message
Web: rockymountainpower.net/wattsmart and promotional URL wattsmart.com link directly to the energy efficiency landing page. Once there customers can self-select their state for specific programs and incentives.	Messages rotate each month based on the season.
Twitter	Tweets posted on a weekly basis.
Facebook	Information and tips posted 3-5 times a week. Promoted posts and mobile ads are also used where appropriate.
<i>Voices</i> residential newsletter	Newsletters are sent via bill insert and email six times a year; each issue includes energy efficiency tips and incentive program information.
<i>wattsup</i> insert - seasonal change inserts dedicated to energy efficiency	May and October
<i>Home Energy Savings/wattsmart</i> Starter Kit program inserts	1-2 per year
<i>Energy Connections, Energy Insights</i> - newsletters to businesses and communities	Articles appear in both monthly and quarterly publications.

Paid Media/ wattsmart Campaign

The overall paid media plan objective is to effectively reach our customers through a multi-media mix that extends both reach and frequency. Tapping into all resources with consistent messaging has been the Company's approach and will continue to be refined.

Key strategies include:

- Implementing an advertising campaign featuring *wattsmart* energy efficiency messaging.
- Promoting customer conservation (behavioral changes) and increasing participation and savings through the Company's *wattsmart* DSM programs.
- Motivating Wyoming customers to reduce consumption independently or to do so by participating in the Company's *wattsmart* DSM programs.
- Educating customers on how these programs can help them save money on their utility bills, reduce energy consumption and keep costs down for all the Company's customers.

To reach residential customers, the Company used TV, radio, social and digital media. We reminded customers about Wattsmart, Wyoming – the right place for savings. In Wattsmart, folks turn off lights and electronics when not in use. They only use efficient appliances and make sure their homes are well insulated. The payoff for the campaign is – *You may not live in Wattsmart, but you can learn to live wattsmart.*

Each of the ads is focused on a different piece of messaging that is delivered to customers.

- Incentives
- Weatherization
- Lighting (LED)
- Turning off the lights and unplugging electronics when not in use
- Keeping the thermostat set to 68 degrees in the winter

New creative was developed to target business customers to include, TV, radio, print, social and digital. Ads were case study focused, highlighting business customers saving energy and money by partnering with Rocky Mountain Power. Press coverage was also garnered in the February 2016 issue of *Wyoming Business Report* about three Wyoming businesses saving energy and money through participation in Rocky Mountain Power's energy efficiency programs.

Table 22 outlines the value each communication channel provides the impressions achieved in 2016.

Table 22
Communication Channels

Communication Channel	Value to Communication Portfolio	Impressions to date
Television	Television has the broadest reach and works as the most effective media channel.	453,350 impressions
Radio	Given the cost relative to television, radio builds on communications delivered via television while providing for increased frequency of messages.	183,500 impressions*
Newspaper	Supports broadcast messages and guarantees coverage in areas harder to reach with broadcast.	883,048 impressions
Magazine	Supports broadcast messages and reaches business audiences	34,650 impressions
Digital Display	Online advertising – banner ads	2,107,659 impressions
Internet Search (i.e. Google)		9,219 impressions
Twitter (@RMP_Wyoming)	Awareness regarding energy efficiency tips; Tweets posted on a weekly basis.	997 followers
Facebook www.facebook.com/rockymountainpower.wattsmart	Awareness regarding energy efficiency tips and a location to share information.	21,440 total fans. Facebook advertising - 381,531 impressions.

*Radio impressions are not quantified. Impression is estimated.

The total number impressions (plus page views) for the *wattsmart* campaign was 4,052,957.

Program Specific

All energy efficiency program marketing and communications are under the *wattsmart* umbrella to ensure a seamless transition from changing customer behavior to the actions they could take by participating in specific programs. Separate marketing activities administered by and specific to the programs ran in conjunction with the *wattsmart* campaign.

Home Energy Savings

Information on the *Home Energy Savings* program is communicated to customers, retailers and trade allies through a variety of channels, including bill inserts, newsletters, emails, website and social media. The Company communicates select program measures during key selling seasons and promotes *wattsmart* Starter Kits to targeted customers throughout the year to achieve savings goals.

A bill insert encouraging customers to take advantage of the \$1,000 ductless heat pump incentive was distributed in February bills.

Communications for the *wattsmart* Starter Kit were delivered through Facebook ads, direct mail and emails to Wyoming residents.

During 2016, program communications delivered approximately 416,320 impressions. A breakdown of estimated impressions by channel is shown in Table 23. These estimates do not reflect all of the customer, retailer and trade ally touchpoints.



Table 23
Communication Channels

Communications Channel	2016 Estimated Impressions	Clicks
Facebook ads	339,083	2162
Emails	1,067	28
Direct mail	1,170	N/A
Bill insert	75,000	N/A

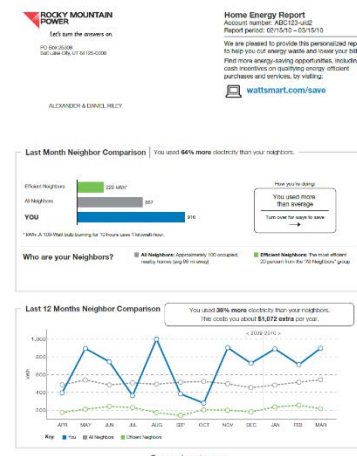
Home Energy Reports

In 2015, the Company introduced *Home Energy Reports* to Wyoming residential customers. The reports provide information about the household's energy use compared to other similar households, and offers personalized energy-saving tips. Customers can also login to the program website to access tools including a progress tracker, bill comparison, home energy assessment and more.

The Company included information in the reports to promote insulation incentives and renewable energy choices.

wattsmart Business

During 2016, communications reminded customers to inquire about incentives for lighting, HVAC, compressed air, irrigation and other energy efficiency measures. Radio communications encouraged business customers to make energy efficiency upgrades and print ads featured case study examples from program participants which were repurposed in social media. Eblasts and digital display and search ads directed viewers to the Company's website²³. Targeted direct mail was sent to irrigation customers to encourage irrigation retrofits. This was in addition to customer direct contact by Company project managers and corporate and community



²³ www.wattsmart.com

managers, trade ally partners, articles in the Company newsletters, Chamber newsletter outreach, and content on the Company website and on Facebook.

Emails focused on vertical markets were sent to office/retail, grocery/convenience stores and restaurant/lodging businesses. A separate webinar was held for restaurants and food service customers to educate and inform them about incentives and savings available to their industry.

One customer was recognized as *wattsmart* Business Partner of the year and presented with a trophy. The customer's accomplishment was shared in the Company's newsletter for Wyoming business customers

The Company continued to use a *wattsmart* "open sign" for businesses and approved vendors to display. Customers were photographed with the open sign and the photos were used in newsletter articles, and on Facebook.



A breakdown of impressions by media type is shown in Table 24.

Table 24
Impressions by Media Type

Communications Channel	2016
Radio	268,200
Newspaper	870,870
Magazine	25,200
Eblasts	17,438
Digital Display	417,195
Digital Search	4,553
Irrigation Direct Mail	970

Quarterly, the Company files its education and promotional materials used during that timeframe. To review all Company materials, see Docket No. 20000-264-EA-06.

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's organization to ensure they are performed and managed by personnel who have a neutral interest in the benefits associated with anticipated savings.

Information on evaluation activities completed or in progress during 2016 is summarized in the chart below. A summary of the recommendations are provided in Appendix 5. Evaluation reports are available at www.pacificorp.com/es/dsm/wyoming.html

PROGRAM	YEARS EVALUATED	EVALUATOR	STATUS
Refrigerator and Freezer Recycling	2013-2014	The Cadmus Group	Completed
Home Energy Savings	2013-2014	The Cadmus Group	Completed
wattsmart Business	2014-2015	The Cadmus Group	Completed in 2017



Appendix 1

Wyoming Cost Effectiveness



Navigant estimated the cost-effectiveness for the overall energy efficiency portfolio and component sectors, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall energy efficiency portfolio and the two sector components.

The portfolio passes the cost-effectiveness for only the tests except the RIM test. The memo consists of the following tables.

Table 1 - Utility Inputs

Table 2 – Portfolio Level Costs 2016

Table 3 – Benefit/Cost Ratios by Portfolio Type

Table 4 – 2016 Total Energy Efficiency Portfolio Cost-Effectiveness Results

Table 5 - 2016 C&I Energy Efficiency Portfolio Cost-Effectiveness Results

Table 6 - 2016 Residential Energy Efficiency Portfolio Results (with Portfolio Costs)

Table 7 - 2016 Residential Energy Efficiency Portfolio Results (without Portfolio Costs)

Table 1 - Utility Inputs

Parameter	Value
Discount Rate	6.66%
Residential Line Loss	9.51%
Commercial Line Loss	8.90%
Industrial Line Loss	5.61%
Irrigation Line Loss	9.28%
Residential Energy Rate (\$/kWh)	\$0.1127
Commercial Energy Rate (\$/kWh)	\$0.0909
Industrial Energy Rate (\$/kWh)	\$0.0662
Irrigation Energy Rate (\$/kWh)	\$0.0870
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Portfolio Level Costs 2016

Cost	Value
Portfolio EM&V, DSM Central and Technical Reference Library - Cat 1	\$122,891
Portfolio EM&V, DSM Central and Technical Reference Library - Cat 2	\$61,716
Portfolio EM&V, DSM Central and Technical Reference Library - Cat 3	\$81,410
Outreach & Communication - Cat 1	\$91,929
Outreach & Communication - Cat 2	\$49,938
Outreach & Communication - Cat 3	\$46,482
Total Costs	\$454,367

Table 3 – Benefit/Cost Ratios by Portfolio Type

Measure Group	PTRC	TRC	UCT	RIM	PCT
Total Portfolio	1.49	1.35	2.19	0.63	2.46
C&I Programs	1.54	1.40	2.37	0.66	2.37
Residential Programs (with Portfolio Costs)	0.89	0.81	0.83	0.32	4.72
Residential Programs (without Portfolio Costs)	1.11	1.01	1.05	0.35	4.72

Table 4 – 2016 Total Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0545	\$13,690,930	\$20,406,312	\$6,715,383	1.49
Total Resource Cost Test (TRC) No Adder	\$0.0545	\$13,690,930	\$18,551,193	\$4,860,263	1.35
Utility Cost Test (UCT)	\$0.0338	\$8,486,954	\$18,551,193	\$10,064,239	2.19
Rate Impact Test (RIM)		\$29,384,569	\$18,551,193	-\$10,833,377	0.63
Participant Cost Test (PCT)		\$13,932,015	\$34,240,286	\$20,308,271	2.46
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000901301

Table 5 - 2016 C&I Energy Efficiency Portfolio Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0531	\$12,635,752	\$19,469,623	\$6,833,870	1.54
Total Resource Cost Test (TRC) No Adder	\$0.0531	\$12,635,752	\$17,699,657	\$5,063,904	1.40
Utility Cost Test (UCT)	\$0.0314	\$7,462,198	\$17,699,657	\$10,237,459	2.37
Rate Impact Test (RIM)		\$26,759,689	\$17,699,657	-\$9,060,032	0.66
Participant Cost Test (PCT)		\$13,410,879	\$31,781,905	\$18,371,026	2.37
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000648038

Table 6 – 2016 Residential Energy Efficiency Portfolio Cost-Effectiveness Results (with Portfolio Costs)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0796	\$1,055,177	\$936,690	-\$118,487	0.89
Total Resource Cost Test (TRC) No Adder	\$0.0796	\$1,055,177	\$851,536	-\$203,641	0.81
Utility Cost Test (UCT)	\$0.0773	\$1,024,756	\$851,536	-\$173,220	0.83
Rate Impact Test (RIM)		\$2,624,881	\$851,536	-\$1,773,345	0.32
Participant Cost Test (PCT)		\$521,136	\$2,458,381	\$1,937,245	4.72
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000438094

**Table 7 – 2016 Residential Energy Efficiency Portfolio Cost-Effectiveness Results
 (without Portfolio Costs)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0634	\$840,357	\$936,690	\$96,332	1.11
Total Resource Cost Test (TRC) No Adder	\$0.0634	\$840,357	\$851,536	\$11,179	1.01
Utility Cost Test (UCT)	\$0.0611	\$809,937	\$851,536	\$41,599	1.05
Rate Impact Test (RIM)		\$2,410,061	\$851,536	-\$1,558,525	0.35
Participant Cost Test (PCT)		\$521,136	\$2,458,381	\$1,937,245	4.72
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000385024



Navigant estimated the cost-effectiveness results for the Wyoming Home Energy Savings Program, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for the seven measure categories.

Cost-effectiveness was tested using the 2015 IRP east residential whole house 31%, east residential cooling 9% and east residential lighting 47% load factor decrements. The program passes cost-effectiveness for only the PCT test. The memo consists of the following tables.

- Table 1 - Home Energy Savings Inputs
- Table 2 – Home Energy Savings Annual Program Costs
- Table 3 – Home Energy Savings – Savings by Measure Category
- Table 4 - Benefit/Cost Ratios by Measure Category
- Table 5 – Home Energy Savings Program Level Cost-Effectiveness Results
- Table 6 - Home Energy Savings Appliance Cost-Effectiveness Results
- Table 7 - Home Energy Savings Building Shell Cost-Effectiveness Results
- Table 8 - Home Energy Savings Energy Kits – DHW Cost-Effectiveness Results
- Table 9 - Home Energy Savings Energy Kits – Lighting Cost-Effectiveness Results
- Table 10 - Home Energy Savings HVAC Cost-Effectiveness Results
- Table 11 - Home Energy Savings Lighting Cost-Effectiveness Results
- Table 12 - Home Energy Savings Water Heating Cost-Effectiveness Results

Table 1 - Home Energy Savings Inputs

Parameter	Value
Discount Rate	6.66%
Residential Line Loss	9.51%
Residential Energy Rate (\$/kWh)	\$0.1127
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Home Energy Savings Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Appliances	\$0	\$164	\$26,433	\$54	\$7,470	\$34,121	\$11,043
Building Shell	\$0	\$224	\$36,105	\$73	\$6,272	\$42,675	\$8,115
Energy Kits - DHW	\$0	\$2,496	\$16,467	\$817	\$8,246	\$28,026	\$8,845
Energy Kits - Lighting	\$0	\$270	\$1,783	\$89	\$3,151	\$5,292	\$3,495
HVAC	\$0	\$1,115	\$179,542	\$365	\$36,800	\$217,821	-\$20,047
Lighting	\$0	\$17,189	\$96,210	\$5,631	\$205,165	\$324,194	\$504,209
Water Heating	\$0	\$73	\$11,811	\$24	\$1,200	\$13,108	\$5,476
Total	\$0	\$21,531	\$368,350	\$7,053	\$268,304	\$665,239	\$521,136

Table 3 – Home Energy Savings – Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Appliances	16,060	70%	11,242	54%	6,071	16
Building Shell	21,936	100%	21,936	100%	21,936	30
Energy Kits - DHW	244,205	71%	173,386	70%	121,370	10
Energy Kits - Lighting	26,440	77%	20,359	58%	11,808	6
HVAC	109,084	87%	94,903	99%	93,954	19
Lighting	1,682,066	77%	1,295,191	58%	751,211	10
Water Heating	7,176	77%	5,526	70%	3,868	15
Total	2,106,968	77%	1,622,542	62%	1,010,218	11

Table 4 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Appliances	0.16	0.14	0.14	0.11	2.03
Building Shell	0.85	0.78	0.81	0.41	5.96
Energy Kits - DHW	2.68	2.44	2.26	0.44	19.42
Energy Kits - Lighting	1.03	0.94	0.74	0.31	4.49
HVAC	0.50	0.45	0.33	0.20	0.00
Lighting	1.05	0.95	1.21	0.38	2.83
Water Heating	0.20	0.18	0.22	0.16	1.51
Total	0.91	0.82	0.86	0.34	3.59

Table 5 – Home Energy Savings Program Level Cost-Effectiveness Results

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0819	\$695,659	\$630,074	-\$65,586	0.91
Total Resource Cost Test (TRC) No Adder	\$0.0819	\$695,659	\$572,794	-\$122,865	0.82
Utility Cost Test (UCT)	\$0.0784	\$665,239	\$572,794	-\$92,445	0.86
Rate Impact Test (RIM)		\$1,690,888	\$572,794	-\$1,118,094	0.34
Participant Cost Test (PCT)		\$521,136	\$1,871,796	\$1,350,660	3.59
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000101312
Discounted Participant Payback (years)					2.25

Table 6 through Table 12 provides cost-effectiveness results for all seven measures.

**Table 6 - Home Energy Savings Appliance Cost-Effectiveness Results
 (Decrement – East Residential Whole House - 31%, Load Shape – Water Heating)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.4873	\$32,615	\$5,138	-\$27,477	0.16
Total Resource Cost Test (TRC) No Adder	\$0.4873	\$32,615	\$4,671	-\$27,944	0.14
Utility Cost Test (UCT)	\$0.5098	\$34,121	\$4,671	-\$29,451	0.14
Rate Impact Test (RIM)		\$42,218	\$4,671	-\$37,548	0.11
Participant Cost Test (PCT)		\$11,043	\$22,465	\$11,422	2.03
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000002357
Discounted Participant Payback (years)					5.70

**Table 7 - Home Energy Savings Building Shell Cost-Effectiveness Results
 (Decrement – East Residential Whole House - 31%, Load Shape – Cooling)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1284	\$44,518	\$38,028	-\$6,490	0.85
Total Resource Cost Test (TRC) No Adder	\$0.1284	\$44,518	\$34,571	-\$9,947	0.78
Utility Cost Test (UCT)	\$0.1231	\$42,675	\$34,571	-\$8,104	0.81
Rate Impact Test (RIM)		\$84,775	\$34,571	-\$50,204	0.41
Participant Cost Test (PCT)		\$8,115	\$48,372	\$40,257	5.96
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001700
Discounted Participant Payback (years)					0.73

**Table 8 - Home Energy Savings Energy Kits – DHW Cost-Effectiveness Results
 (Decrement – East Residential Whole House - 31%, Load Shape – Water Heating)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0274	\$25,971	\$69,572	\$43,601	2.68
Total Resource Cost Test (TRC) No Adder	\$0.0274	\$25,971	\$63,247	\$37,276	2.44
Utility Cost Test (UCT)	\$0.0296	\$28,026	\$63,247	\$35,221	2.26
Rate Impact Test (RIM)		\$142,502	\$63,247	-\$79,255	0.44
Participant Cost Test (PCT)		\$8,845	\$171,783	\$162,938	19.42
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000007887
Discounted Participant Payback (years)					0.04

**Table 9 - Home Energy Savings Energy Kits – Lighting Cost-Effectiveness Results
 (Decrement – East Residential Lighting - 47%, Load Shape – Lighting)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0690	\$4,169	\$4,304	\$135	1.03
Total Resource Cost Test (TRC) No Adder	\$0.0690	\$4,169	\$3,913	-\$256	0.94
Utility Cost Test (UCT)	\$0.0876	\$5,292	\$3,913	-\$1,380	0.74
Rate Impact Test (RIM)		\$12,573	\$3,913	-\$8,660	0.31
Participant Cost Test (PCT)		\$3,495	\$15,704	\$12,209	4.49
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001429
Discounted Participant Payback (years)					0.25

**Table 10 - Home Energy Savings HVAC Cost-Effectiveness Results
(Decrement – East Residential Whole House - 31%, Load Shape – Heat Pump)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1392	\$161,175	\$79,816	-\$81,359	0.50
Total Resource Cost Test (TRC) No Adder	\$0.1392	\$161,175	\$72,560	-\$88,615	0.45
Utility Cost Test (UCT)	\$0.1881	\$217,821	\$72,560	-\$145,261	0.33
Rate Impact Test (RIM)		\$358,043	\$72,560	-\$285,483	0.20
Participant Cost Test (PCT)		-\$20,047	\$178,438	\$198,485	-8.90
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000015151
Discounted Participant Payback (years)					n/a

**Table 11 - Home Energy Savings Lighting Cost-Effectiveness Results
(Decrement – East Residential Lighting - 47%, Load Shape – Lighting)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0701	\$411,470	\$430,106	\$18,635	1.05
Total Resource Cost Test (TRC) No Adder	\$0.0701	\$411,470	\$391,005	-\$20,465	0.95
Utility Cost Test (UCT)	\$0.0552	\$324,194	\$391,005	\$66,811	1.21
Rate Impact Test (RIM)		\$1,032,734	\$391,005	-\$641,728	0.38
Participant Cost Test (PCT)		\$504,209	\$1,426,784	\$922,576	2.83
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000063858
Discounted Participant Payback (years)					3.69

**Table 12 - Home Energy Savings Water Heating Cost-Effectiveness Results
(Decrement – East Residential Whole House - 31%, Load Shape – Water Heating)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.3858	\$15,742	\$3,110	-\$12,631	0.20
Total Resource Cost Test (TRC) No Adder	\$0.3858	\$15,742	\$2,828	-\$12,914	0.18
Utility Cost Test (UCT)	\$0.3212	\$13,108	\$2,828	-\$10,281	0.22
Rate Impact Test (RIM)		\$18,043	\$2,828	-\$15,216	0.16
Participant Cost Test (PCT)		\$5,476	\$8,250	\$2,774	1.51
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001017
Discounted Participant Payback (years)					12.31



Navigant estimated the cost-effectiveness results for the Wyoming Home Energy Reporting Program, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program.

Cost-effectiveness was tested using the 2015 IRP east residential whole house 31% load factor decrement. The program passes the cost-effectiveness for all the tests except the RIM and PCT tests.

Table 1 - Home Energy Reporting Inputs

Table 2 – Home Energy Reporting Annual Program Costs

Table 3 – Home Energy Reporting Savings by Measure Category

Table 4 - Home Energy Reporting Program Level Cost-Effectiveness Results

Table 1 - Home Energy Reporting Inputs

Parameter	Value
Discount Rate	6.66%
Residential Line Loss	9.51%
Residential Energy Rate (\$/kWh)	\$0.1127
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Home Energy Reporting Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Home Energy Reports	\$0	\$6,569	\$117,690	\$2,258	\$0	\$126,517	\$0
Total	\$0	\$6,569	\$117,690	\$2,258	\$0	\$126,517	\$0

Table 3 – Home Energy Reporting Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Home Energy Reports	4,672,620	100%	4,672,620	100%	4,672,620	1
Total	4,672,620	100%	4,672,620	100%	4,672,620	1

**Table 4 - Home Energy Reporting Program Level Cost-Effectiveness Results
 (Decrement – East Residential Whole House - 31%, Load Shape – Whole House)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0284	\$126,517	\$284,750	\$158,233	2.25
Total Resource Cost Test (TRC) No Adder	\$0.0284	\$126,517	\$258,864	\$132,347	2.05
Utility Cost Test (UCT)	\$0.0284	\$126,517	\$258,864	\$132,347	2.05
Rate Impact Test (RIM)		\$663,127	\$258,864	-\$404,263	0.39
Participant Cost Test (PCT)		\$0	\$536,610	\$536,610	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000398241
Discounted Participant Payback (years)					n/a



Navigant estimated the cost-effectiveness results for the Wyoming Low Income Weatherization Program, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program.

Cost-effectiveness was tested using the 2015 IRP east residential whole house 31% load factor decrement. The program passes cost-effectiveness for all the tests except RIM and PCT tests.

Table 1 - Low Income Weatherization Inputs

Table 2 - Low Income Weatherization Annual Program Costs

Table 3 - Low Income Weatherization Savings by Measure Category

Table 4 - Low Income Weatherization Program Level Cost-Effectiveness Results

Table 1 - Low Income Weatherization Inputs

Parameter	Value
Discount Rate	6.66%
Residential Line Loss	9.51%
Residential Energy Rate (\$/kWh)	\$0.1127
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 - Low Income Weatherization Annual Program Costs

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Total Utility Costs	Gross Customer Costs
Low Income Weatherization	\$0	\$5,116	\$962	\$138	\$9,620	\$15,836	\$0
Total	\$0	\$5,116	\$962	\$138	\$9,620	\$15,836	\$0

Table 3 - Low Income Weatherization Savings by Measure Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Low Income Weatherization	20,147	100%	20,147	100%	20,147	27
Total	20,147	100%	20,147	100%	20,147	27

**Table 4 - Low Income Weatherization Program Level Cost-Effectiveness Results
 (Decrement – East Residential Whole House - 31%, Load Shape – Whole House)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0523	\$15,836	\$21,372	\$5,536	1.35
Total Resource Cost Test (TRC) No Adder	\$0.0523	\$15,836	\$19,429	\$3,593	1.23
Utility Cost Test (UCT)	\$0.0523	\$15,836	\$19,429	\$3,593	1.23
Rate Impact Test (RIM)		\$52,567	\$19,429	-\$33,138	0.37
Participant Cost Test (PCT)		\$0	\$46,351	\$46,351	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001245
Discounted Participant Payback (years)					n/a



Navigant estimated the cost-effectiveness results for the Wyoming Wattsmart Business Program Category 2 and 3, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall program and for the individual categories.

Cost-effectiveness was tested using the 2015 IRP east industrial 40%, east commercial lighting 53%, east plug loads 71% and east commercial cooling 14% load factor decrements. The program passes cost-effectiveness for all tests except the RIM test. The memo consists of the following tables.

Table 1 - Utility Inputs

Table 2 – Annual Wattsmart Business Program Costs by Category

Table 3 – Annual Wattsmart Business Program Savings by Category

Table 4 - Benefit/Cost Ratios by Category

Table 5 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 2 & 3

Table 6 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 2

Table 7 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 3

Table 1 - Utility Inputs

Parameter	Value
Discount Rate	6.66%
Commercial Line Loss	8.90%
Industrial Line Loss	5.61%
Irrigation Line Loss	9.28%
Commercial Energy Rate (\$/kWh)	\$0.0909
Industrial Energy Rate (\$/kWh)	\$0.0662
Irrigation Energy Rate (\$/kWh)	\$0.0870
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Annual Wattsmart Business Program Costs by Category

Category	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Bill Credits	Total Utility Costs	Gross Customer Costs
Category 2	\$176,248	\$35,395	\$1,186,317	\$45,651	\$1,448,488	\$0	\$2,892,098	\$5,616,021
Category 3	\$486,441	\$125,662	\$917,634	\$35,242	\$2,211,890	\$553,683	\$4,330,552	\$7,794,859
Total	\$662,689	\$161,057	\$2,103,951	\$80,893	\$3,660,378	\$553,683	\$7,222,651	\$13,410,879

Table 3 – Annual Wattsmart Business Program Savings by Category

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Category 2	11,035,483	99%	10,966,798	70%	7,676,759	14
Category 3	22,533,232	100%	22,516,366	70%	15,761,456	14
Total	33,568,715	99%	33,483,164	70%	23,438,215	13

Table 4 - Benefit/Cost Ratios by Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Category 2	1.22	1.11	2.06	0.58	2.13
Category 3	1.84	1.67	2.71	0.72	2.54
Total	1.57	1.43	2.45	0.67	2.37

Table 5 through Table 7 provide cost-effectiveness results for each Wattsmart Business Program Category beginning with the combination of Category 2 and 3.

Table 5 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 2 & 3

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0521	\$12,396,205	\$19,469,623	\$7,073,417	1.57
Total Resource Cost Test (TRC) No Adder	\$0.0521	\$12,396,205	\$17,699,657	\$5,303,452	1.43
Utility Cost Test (UCT)	\$0.0304	\$7,222,651	\$17,699,657	\$10,477,006	2.45
Rate Impact Test (RIM)		\$26,520,142	\$17,699,657	-\$8,820,485	0.67
Participant Cost Test (PCT)		\$13,410,879	\$31,781,905	\$18,371,026	2.37
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000630904

Table 6 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 2

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0692	\$5,374,825	\$6,551,478	\$1,176,653	1.22
Total Resource Cost Test (TRC) No Adder	\$0.0692	\$5,374,825	\$5,955,889	\$581,064	1.11
Utility Cost Test (UCT)	\$0.0372	\$2,892,098	\$5,955,889	\$3,063,791	2.06
Rate Impact Test (RIM)		\$10,267,369	\$5,955,889	-\$4,311,479	0.58
Participant Cost Test (PCT)		\$5,616,021	\$11,984,588	\$6,368,568	2.13
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000308388

Table 7 - Wattsmart Business Program Level Cost-Effectiveness Results – Category 3

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0438	\$7,021,380	\$12,918,145	\$5,896,764	1.84
Total Resource Cost Test (TRC) No Adder	\$0.0438	\$7,021,380	\$11,743,768	\$4,722,387	1.67
Utility Cost Test (UCT)	\$0.0270	\$4,330,552	\$11,743,768	\$7,413,215	2.71
Rate Impact Test (RIM)		\$16,252,773	\$11,743,768	-\$4,509,005	0.72
Participant Cost Test (PCT)		\$7,794,859	\$19,797,317	\$12,002,458	2.54
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000322516



Navigant estimated the cost-effectiveness results for the Wyoming Wattsmart Business Program Category 2, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall Category 2 program and for the nine measure categories.

Cost-effectiveness was tested using the 2015 IRP east industrial 40%, east commercial lighting 53% and east commercial cooling 14% load factor decrements. The program passes cost-effectiveness for all tests except the RIM test. The memo consists of the following tables.

Table 1 - Utility Inputs

Table 2 – Annual Wattsmart Business Program Costs by Measure Category – Category 2

Table 3 – Annual Wattsmart Business Program Savings by Measure Category – Category 2

Table 4 - Benefit/Cost Ratios by Measure Category

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results – Category 2

Table 6 - Wattsmart Business Building Shell Cost-Effectiveness Results

Table 7 - Wattsmart Business Compressed Air Cost-Effectiveness Results

Table 8 - Wattsmart Business Food Service Equipment Cost-Effectiveness Results

Table 9 - Wattsmart Business HVAC Cost-Effectiveness Results

Table 10 - Wattsmart Business Irrigation Cost-Effectiveness Results

Table 11 - Wattsmart Business Lighting Cost-Effectiveness Results

Table 12 - Wattsmart Business Motors Cost-Effectiveness Results

Table 13 - Wattsmart Business Refrigeration Cost-Effectiveness Results

Table 1 - Utility Inputs

Parameter	Value
Discount Rate	6.66%
Commercial Line Loss	8.90%
Industrial Line Loss	5.61%
Irrigation Line Loss	9.28%
Commercial Energy Rate (\$/kWh)	\$0.0909
Industrial Energy Rate (\$/kWh)	\$0.0662
Irrigation Energy Rate (\$/kWh)	\$0.0870
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Annual Wattsmart Business Program Costs by Measure Category – Category 2

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Bill Credits	Total Utility Costs	Gross Customer Costs
Building Shell	\$56	\$25	\$6,219	\$35	\$3,647	\$0	\$9,981	\$12,800
Compressed Air	\$2,244	\$825	\$33,272	\$721	\$5,402	\$0	\$42,464	\$11,813
Food Service Equipment	\$587	\$258	\$65,450	\$364	\$6,094	\$0	\$72,753	\$16,609
HVAC	\$5,087	\$2,239	\$567,017	\$3,157	\$67,136	\$0	\$644,635	\$450,827
Irrigation	\$0	\$1,214	\$7,216	\$156	\$4,654	\$0	\$13,240	\$22,774
Lighting	\$165,278	\$29,627	\$374,224	\$39,814	\$1,317,559	\$0	\$1,926,503	\$4,973,996
Motors	\$2,033	\$784	\$105,347	\$805	\$21,370	\$0	\$130,339	\$58,367
Refrigeration	\$963	\$424	\$27,572	\$598	\$22,626	\$0	\$52,183	\$68,836
Total	\$176,248	\$35,395	\$1,186,317	\$45,651	\$1,448,488	\$0	\$2,892,098	\$5,616,021

Table 3 – Annual Wattsmart Business Program Savings by Measure Category – Category 2

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Building Shell	8,370	100%	8,370	70%	5,859	19
Compressed Air	174,384	100%	174,384	70%	122,069	14
Food Service Equipment	88,090	100%	88,090	70%	61,663	10
HVAC	763,160	91%	694,476	70%	486,133	17
Irrigation	37,819	100%	37,819	70%	26,473	6
Lighting	9,624,524	100%	9,624,524	70%	6,737,166	14
Motors	194,627	100%	194,627	70%	136,239	15
Refrigeration	144,509	100%	144,509	70%	101,156	15
Total	11,035,483	99%	10,966,798	70%	7,676,759	14

Table 4 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Building Shell	0.68	0.62	0.95	0.56	1.07
Compressed Air	2.17	1.97	2.11	0.69	11.00
Food Service Equipment	0.49	0.44	0.47	0.29	4.40
HVAC	0.90	0.82	1.13	0.61	1.87
Irrigation	0.78	0.71	1.31	0.67	0.99
Lighting	1.30	1.19	2.52	0.58	2.12
Motors	0.69	0.63	0.72	0.39	3.16
Refrigeration	1.83	1.67	2.48	0.83	2.49
Total	1.22	1.11	2.06	0.58	2.13

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results – Category 2

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0692	\$5,374,825	\$6,551,478	\$1,176,653	1.22
Total Resource Cost Test (TRC) No Adder	\$0.0692	\$5,374,825	\$5,955,889	\$581,064	1.11
Utility Cost Test (UCT)	\$0.0372	\$2,892,098	\$5,955,889	\$3,063,791	2.06
Rate Impact Test (RIM)		\$10,267,369	\$5,955,889	-\$4,311,479	0.58
Participant Cost Test (PCT)		\$5,616,021	\$11,984,588	\$6,368,568	2.13
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000308388

Table 6 through Table 13 provide cost-effectiveness results for all 8 measure categories in Category 2.

**Table 6 - Wattsmart Business Building Shell Cost-Effectiveness Results
 (Decrement - East Commercial Cooling - 14%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.2118	\$15,294	\$10,430	-\$4,864	0.68
Total Resource Cost Test (TRC) No Adder	\$0.2118	\$15,294	\$9,482	-\$5,812	0.62
Utility Cost Test (UCT)	\$0.1382	\$9,981	\$9,482	-\$499	0.95
Rate Impact Test (RIM)		\$17,034	\$9,482	-\$7,552	0.56
Participant Cost Test (PCT)		\$12,800	\$13,723	\$923	1.07
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000000401
Discounted Participant Payback (years)					29.21

**Table 7 - Wattsmart Business Compressed Air Cost-Effectiveness Results
 (Decrement - East Industrial - 40%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0369	\$45,330	\$98,421	\$53,091	2.17
Total Resource Cost Test (TRC) No Adder	\$0.0369	\$45,330	\$89,474	\$44,143	1.97
Utility Cost Test (UCT)	\$0.0346	\$42,464	\$89,474	\$47,010	2.11
Rate Impact Test (RIM)		\$129,604	\$89,474	-\$40,130	0.69
Participant Cost Test (PCT)		\$11,813	\$129,888	\$118,075	11.00
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000002870
Discounted Participant Payback (years)					0.78

**Table 8 - Wattsmart Business Food Service Equipment Cost-Effectiveness Results
 (Decrement - East Industrial - 40%, Load Shape – Lighting)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1625	\$78,286	\$37,982	-\$40,304	0.49
Total Resource Cost Test (TRC) No Adder	\$0.1625	\$78,286	\$34,529	-\$43,756	0.44
Utility Cost Test (UCT)	\$0.1510	\$72,753	\$34,529	-\$38,224	0.47
Rate Impact Test (RIM)		\$119,663	\$34,529	-\$85,134	0.29
Participant Cost Test (PCT)		\$16,609	\$73,108	\$56,499	4.40
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000008472
Discounted Participant Payback (years)					1.88

**Table 9 - Wattsmart Business HVAC Cost-Effectiveness Results
 (Decrement - East Commercial Cooling - 14%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1600	\$893,078	\$800,692	-\$92,386	0.90
Total Resource Cost Test (TRC) No Adder	\$0.1600	\$893,078	\$727,902	-\$165,176	0.82
Utility Cost Test (UCT)	\$0.1155	\$644,635	\$727,902	\$83,267	1.13
Rate Impact Test (RIM)		\$1,189,303	\$727,902	-\$461,400	0.61
Participant Cost Test (PCT)		\$450,827	\$845,232	\$394,405	1.87
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000027302
Discounted Participant Payback (years)					10.49

**Table 10 - Wattsmart Business Irrigation Cost-Effectiveness Results
 (Decrement - East Comm. Cooling - 14%, Load Shape – Irrigation)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1811	\$24,528	\$19,104	-\$5,423	0.78
Total Resource Cost Test (TRC) No Adder	\$0.1811	\$24,528	\$17,368	-\$7,160	0.71
Utility Cost Test (UCT)	\$0.0978	\$13,240	\$17,368	\$4,128	1.31
Rate Impact Test (RIM)		\$25,841	\$17,368	-\$8,473	0.67
Participant Cost Test (PCT)		\$22,774	\$22,655	-\$119	0.99
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001398
Discounted Participant Payback (years)					9.26

**Table 11 - Wattsmart Business Lighting Cost-Effectiveness Results
 (Decrement - East Commercial Lighting – 53%, Load Shape – Lighting)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0604	\$4,090,741	\$5,338,416	\$1,247,675	1.30
Total Resource Cost Test (TRC) No Adder	\$0.0604	\$4,090,741	\$4,853,105	\$762,364	1.19
Utility Cost Test (UCT)	\$0.0284	\$1,926,503	\$4,853,105	\$2,926,602	2.52
Rate Impact Test (RIM)		\$8,385,296	\$4,853,105	-\$3,532,191	0.58
Participant Cost Test (PCT)		\$4,973,996	\$10,544,407	\$5,570,411	2.12
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000252647
Discounted Participant Payback (years)					6.82

**Table 12 - Wattsmart Business Motors Cost-Effectiveness Results
 (Decrement - East Industrial - 40%, Load Shape – Machinery General)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1073	\$149,826	\$103,838	-\$45,988	0.69
Total Resource Cost Test (TRC) No Adder	\$0.1073	\$149,826	\$94,398	-\$55,428	0.63
Utility Cost Test (UCT)	\$0.0934	\$130,339	\$94,398	-\$35,941	0.72
Rate Impact Test (RIM)		\$244,346	\$94,398	-\$149,948	0.39
Participant Cost Test (PCT)		\$58,367	\$184,236	\$125,870	3.16
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000010026
Discounted Participant Payback (years)					3.75

**Table 13 - Wattsmart Business Refrigeration Cost-Effectiveness Results
 (Decrement - East Commercial Cooling - 14%, Load Shape – Refrigeration)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0728	\$77,742	\$142,595	\$64,853	1.83
Total Resource Cost Test (TRC) No Adder	\$0.0728	\$77,742	\$129,631	\$51,889	1.67
Utility Cost Test (UCT)	\$0.0489	\$52,183	\$129,631	\$77,448	2.48
Rate Impact Test (RIM)		\$156,282	\$129,631	-\$26,651	0.83
Participant Cost Test (PCT)		\$68,836	\$171,339	\$102,503	2.49
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000001782
Discounted Participant Payback (years)					5.45



Navigant estimated the cost-effectiveness results for the Wyoming Wattsmart Business Program Category 3, based on 2016 costs and savings estimates provided by PacifiCorp. This memo provides the cost-effectiveness results for the overall Category 3 program and for the nine measure categories.

Cost-effectiveness was tested using the 2015 IRP east industrial 40%, east commercial lighting 53% east plug loads 71% and east commercial cooling 14% load factor decrements. The program passes cost-effectiveness for all tests except the RIM test. The memo consists of the following tables.

Table 1 - Utility Inputs

Table 2 – Annual Wattsmart Business Program Costs by Measure Category – Category 3

Table 3 – Annual Wattsmart Business Program Savings by Measure Category – Category 3

Table 4 - Benefit/Cost Ratios by Measure Category

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results – Category 3

Table 6 - Wattsmart Business Compressed Air Cost-Effectiveness Results

Table 7 - Wattsmart Business Electronics Cost-Effectiveness Results

Table 8 - Wattsmart Business HVAC Cost-Effectiveness Results

Table 9 - Wattsmart Business Irrigation Cost-Effectiveness Results

Table 10 - Wattsmart Business Lighting Cost-Effectiveness Results

Table 11 - Wattsmart Business Motors Cost-Effectiveness Results

Table 12 - Wattsmart Business Energy Project Manager Cost-Effectiveness Results

Table 13 - Wattsmart Business Oil & Gas Cost-Effectiveness Results

Table 1 - Utility Inputs

Parameter	Value
Discount Rate	6.66%
Commercial Line Loss	8.90%
Industrial Line Loss	5.61%
Irrigation Line Loss	9.28%
Commercial Energy Rate (\$/kWh)	\$0.0909
Industrial Energy Rate (\$/kWh)	\$0.0662
Irrigation Energy Rate (\$/kWh)	\$0.0870
Inflation Rate ¹	1.9%

¹ Future rates determined using a 1.9% annual escalator.

Table 2 – Annual Wattsmart Business Program Costs by Measure Category – Category 3

Measure Group	Engineering Costs	Utility Admin	Program Delivery	Program Dev.	Incentives	Bill Credits	Total Utility Costs	Gross Customer Costs
Compressed Air	\$10,605	\$2,803	\$0	\$741	\$73,626	\$0	\$87,775	\$246,890
Electronics	\$20,375	\$526	\$52,031	\$243	\$7,545	\$0	\$80,720	\$18,108
HVAC	\$24,567	\$634	\$9,909	\$293	\$19,925	\$0	\$55,328	-\$46,505
Irrigation	\$0	\$57	\$1,078	\$26	\$2,160	\$0	\$3,321	\$14,499
Lighting	\$10,775	\$10,593	\$84,625	\$4,570	\$409,822	\$0	\$520,385	\$1,197,137
Motors	\$333,162	\$88,064	\$1,409	\$23,290	\$1,468,661	\$553,683	\$2,468,269	\$5,862,425
Energy Project Manager	\$0	\$0	\$0	\$0	\$21,224	\$0	\$21,224	\$0
Oil & Gas	\$86,957	\$22,985	\$768,582	\$6,079	\$208,927	\$0	\$1,093,530	\$502,305
Total	\$486,441	\$125,662	\$917,634	\$35,242	\$2,211,890	\$553,683	\$4,330,552	\$7,794,859

Table 3 – Annual Wattsmart Business Program Savings by Measure Category – Category 3

Measure Group	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Compressed Air	474,000	100%	474,000	70%	331,800	14
Electronics	155,427	100%	155,427	70%	108,799	5
HVAC	187,400	91%	170,534	70%	119,374	17
Irrigation	16,778	100%	16,778	70%	11,745	6
Lighting	2,921,870	100%	2,921,870	70%	2,045,309	14
Motors	14,891,111	100%	14,891,111	70%	10,423,778	15
Energy Project Manager	0	n/a	0	n/a	0	0
Oil & Gas	3,886,646	100%	3,886,646	70%	2,720,652	12
Total	22,533,232	100%	22,516,366	70%	15,761,456	14

Table 4 - Benefit/Cost Ratios by Measure Category

Measure Group	PTRC	TRC	UCT	RIM	PCT
Compressed Air	1.43	1.30	2.77	0.75	1.67
Electronics	0.29	0.26	0.28	0.18	4.05
HVAC	69.00	62.73	3.23	0.95	0.00
Irrigation	0.75	0.68	2.32	0.86	0.70
Lighting	1.71	1.55	2.83	0.60	2.67
Motors	1.95	1.77	3.26	0.78	2.25
Energy Project Manager	0.00	0.00	0.00	0.00	0.00
Oil & Gas	1.57	1.43	1.61	0.62	5.35
Total	1.84	1.67	2.71	0.72	2.54

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results – Category 3

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0438	\$7,021,380	\$12,918,145	\$5,896,764	1.84
Total Resource Cost Test (TRC) No Adder	\$0.0438	\$7,021,380	\$11,743,768	\$4,722,387	1.67
Utility Cost Test (UCT)	\$0.0270	\$4,330,552	\$11,743,768	\$7,413,215	2.71
Rate Impact Test (RIM)		\$16,252,773	\$11,743,768	-\$4,509,005	0.72
Participant Cost Test (PCT)		\$7,794,859	\$19,797,317	\$12,002,458	2.54
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000322516

Table 6 through Table 13 provide cost-effectiveness results for all 8 measure categories in Category 3.

Table 6 - Wattsmart Business Compressed Air Cost-Effectiveness Results (Decrement – East Industrial - 40%, Load Shape – HVAC)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0561	\$186,973	\$267,522	\$80,550	1.43
Total Resource Cost Test (TRC) No Adder	\$0.0561	\$186,973	\$243,202	\$56,229	1.30
Utility Cost Test (UCT)	\$0.0263	\$87,775	\$243,202	\$155,426	2.77
Rate Impact Test (RIM)		\$324,634	\$243,202	-\$81,432	0.75
Participant Cost Test (PCT)		\$246,890	\$411,995	\$165,105	1.67
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000005825
Discounted Participant Payback (years)					9.29

Table 7 - Wattsmart Business Electronics Cost-Effectiveness Results (Decrement - East Plug Loads - 71%, Load Shape – Plug Load)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1811	\$85,851	\$24,759	-\$61,092	0.29
Total Resource Cost Test (TRC) No Adder	\$0.1811	\$85,851	\$22,508	-\$63,343	0.26
Utility Cost Test (UCT)	\$0.1702	\$80,720	\$22,508	-\$58,212	0.28
Rate Impact Test (RIM)		\$126,808	\$22,508	-\$104,299	0.18
Participant Cost Test (PCT)		\$18,108	\$73,384	\$55,276	4.05
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000020620
Discounted Participant Payback (years)					1.05

**Table 8 - Wattsmart Business HVAC Cost-Effectiveness Results
(Decrement – East Commercial Cooling - 14%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0021	\$2,850	\$196,616	\$193,767	69.00
Total Resource Cost Test (TRC) No Adder	\$0.0021	\$2,850	\$178,742	\$175,893	62.73
Utility Cost Test (UCT)	\$0.0404	\$55,328	\$178,742	\$123,414	3.23
Rate Impact Test (RIM)		\$189,075	\$178,742	-\$10,333	0.95
Participant Cost Test (PCT)		-\$46,505	\$210,993	\$257,498	-4.54
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000000611
Discounted Participant Payback (years)					n/a

**Table 9 - Wattsmart Business Irrigation Cost-Effectiveness Results
(Decrement - East Commercial Cooling - 14%, Load Shape – Irrigation)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.1883	\$11,311	\$8,475	-\$2,835	0.75
Total Resource Cost Test (TRC) No Adder	\$0.1883	\$11,311	\$7,705	-\$3,606	0.68
Utility Cost Test (UCT)	\$0.0553	\$3,321	\$7,705	\$4,384	2.32
Rate Impact Test (RIM)		\$8,911	\$7,705	-\$1,207	0.86
Participant Cost Test (PCT)		\$14,499	\$10,146	-\$4,353	0.70
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000000199
Discounted Participant Payback (years)					16.50

**Table 10 - Wattsmart Business Lighting Cost-Effectiveness Results
(Decrement - East Commercial Lighting - 53%, Load Shape – Lighting)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0461	\$948,558	\$1,619,973	\$671,415	1.71
Total Resource Cost Test (TRC) No Adder	\$0.0461	\$948,558	\$1,472,703	\$524,144	1.55
Utility Cost Test (UCT)	\$0.0253	\$520,385	\$1,472,703	\$952,318	2.83
Rate Impact Test (RIM)		\$2,473,472	\$1,472,703	-\$1,000,770	0.60
Participant Cost Test (PCT)		\$1,197,137	\$3,199,948	\$2,002,811	2.67
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000071582
Discounted Participant Payback (years)					4.64

**Table 11 - Wattsmart Business Motors Cost-Effectiveness Results
 (Decrement – East Industrial - 40%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0414	\$4,549,622	\$8,861,101	\$4,311,479	1.95
Total Resource Cost Test (TRC) No Adder	\$0.0414	\$4,549,622	\$8,055,546	\$3,505,924	1.77
Utility Cost Test (UCT)	\$0.0224	\$2,468,269	\$8,055,546	\$5,587,277	3.26
Rate Impact Test (RIM)		\$10,280,453	\$8,055,546	-\$2,224,907	0.78
Participant Cost Test (PCT)		\$5,862,425	\$13,182,607	\$7,320,182	2.25
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000148763
Discounted Participant Payback (years)					6.13

**Table 12 - Wattsmart Business Energy Project Manager Cost-Effectiveness Results
 (Decrement – East Industrial – 40%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	n/a	\$0	\$0	\$0	n/a
Total Resource Cost Test (TRC) No Adder	n/a	\$0	\$0	\$0	n/a
Utility Cost Test (UCT)	n/a	\$21,224	\$0	-\$21,224	0.00
Rate Impact Test (RIM)		\$21,224	\$0	-\$21,224	n/a
Participant Cost Test (PCT)		\$0	\$21,224	\$21,224	n/a
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000000000
Discounted Participant Payback (years)					n/a

**Table 13 - Wattsmart Business Oil & Gas Cost-Effectiveness Results
 (Decrement – East Industrial – 40%, Load Shape – HVAC)**

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0506	\$1,236,216	\$1,939,697	\$703,481	1.57
Total Resource Cost Test (TRC) No Adder	\$0.0506	\$1,236,216	\$1,763,361	\$527,145	1.43
Utility Cost Test (UCT)	\$0.0447	\$1,093,530	\$1,763,361	\$669,831	1.61
Rate Impact Test (RIM)		\$2,828,196	\$1,763,361	-\$1,064,835	0.62
Participant Cost Test (PCT)		\$502,305	\$2,687,021	\$2,184,716	5.35
Lifecycle Revenue Impacts (\$/kWh)					\$0.0000088591
Discounted Participant Payback (years)					1.63



Appendix 2

Home Energy Savings Retailers
2016

List of 2016 Participating Upstream/Midstream Lighting Retailers

	Retailer	City	State	CFLs	LEDs	Fixtures*
1	Ace Hardware - Baileys	Casper	WY	x	x	
2	Ace Hardware - Cazin's	Evanston	WY		x	
3	Ace Hardware #10776	Kemmerer	WY	x	x	
4	Ace Hardware #11263	Green River	WY		x	
5	Ace Hardware #8349	Rock Springs	WY	x	x	
6	Dollar Tree #2891	Rock Springs	WY	x	x	
7	Dollar Tree #3288	Casper	WY	x	x	
8	Dollar Tree #3851	Casper	WY	x	x	
9	Dollar Tree #4544	Evanston	WY	x	x	
10	Dollar Tree #5266	Rawlins	WY	x	x	
11	Family Dollar #5599	Rawlins	WY	x	x	
12	Family Dollar #5767	Mills	WY	x		
13	Family Dollar #6014	Green River	WY	x	x	
14	Family Dollar #6081	Casper	WY	x	x	
15	Family Dollar #8278	Rock Springs	WY	x		
16	Family Dollar #9163	Kemmerer	WY	x	x	
17	Family Dollar #9399	Pinedale	WY	x		
18	Home Depot #6001	Casper	WY	x	x	
19	Home Depot #6003	Rock Springs	WY	x	x	
20	Menards #3243	Casper	WY	x	x	
21	Ridley's #1132	Casper	WY	x	x	
22	Ridley's #1133	Casper	WY	x	x	
23	Ridley's #1163	Kemmerer	WY	x	x	
24	Ridley's #14758	Pinedale	WY	x	x	
25	Sam's Club #6425	Casper	WY		x	
26	Sutherlands #2219	Casper	WY	x	x	
27	Target #T0164	Casper	WY	x	x	
28	True Value Hardware #7425	Rawlins	WY		x	
29	Walmart #1456	Evanston	WY	x	x	
30	Walmart #1461	Rock Springs	WY	x	x	
31	Walmart #1617	Casper	WY	x	x	
32	Walmart #3778	Casper	WY	x	x	
33	Walmart #4471	Rawlins	WY	x	x	

*There were no fixtures offered in Wyoming in 2016.

List of 2016 Participating Upstream/Midstream Appliance Retailers

Retailer	City	Room Air Conditioners	Advanced Power Strips	No redemptions in 2016
There were no retailers participating in room air conditioners or advanced power strips in Wyoming in 2016.				

List of 2016 Participating Downstream Retailers

Includes a summary of product types that were redeemed in 2016 at each location

Participating Retailer (Retailers who are actively enrolled in the program)	City	State	Clothes Washer	Clothes Dryer	Smart Thermostat	Freezer	Refrigerator	Evaporative Cooler - Tier 1	Evaporative Cooler - Tier 2	Evaporative Cooler - Tier 2, Self-Installed	Heat Pump Water Heater, Self-installed	Insulation-Attic	Insulation-Floor	Insulation-Wall	Windows	No Redemptions in 2016
Ace Hardware - Cazin's	Evanston	WY	x			x										
Ace Hardware #8349	Rock Springs	WY								x						
Ace Hardware & Paint #11299	Laramie	WY								x						
Best Buy #1527	Casper	WY					x									
Best Buy #1761*	Park City	UT	x													
Brown's Western Appliance	Worland	WY	x			x										
Cost Plus	Casper	WY	x			x										
Home Depot #4408	Centerville	WY								x						
Home Depot #6001	Casper	WY	x			x	x	x		x						
Home Depot #6003	Rock Springs	WY	x			x	x	x	x	x		x				
John Paras Furniture & Appliance	Rock Springs	WY	x			x										
Kusel's Home Furnishings	Riverton	WY	x			x										
Letz's TV and Appliance	Casper	WY	x			x										
Lowe's #1080	Riverdale	WY	x													
Lowe's #15*	Layton	UT								x						
Lowe's #1906*	Idaho Falls	ID	x													
Lowe's #2845	Clinton	WY	x													
Menards #3243	Casper	WY	x			x						x	x	x		
Meyer's Gambles	Lander	WY	x													
Rasmuson Furniture	Rawlins	WY	x													
RC Willey - Murray*	Murray	UT	x													
RC Willey - Riverdale	Riverdale	WY	x			x										
RC Willey- Draper*	Draper	UT	x													
RC Willey Home Furnishings*	Salt Lake City	UT	x													
Sears #1718*	Ogden	UT	x													
Sears #1867	Laramie	WY	x			x										
Sears #2341	Casper	WY	x			x					x					
Sears #3018	Riverton	WY	x				x				x					
Sears #3359	Cody	WY	x			x										
Sears #3578	Rock Springs	WY	x			x										
Sutherlands #2219	Casper	WY						x		x						

*Retailers are located in Utah or Idaho but participate in the wattsmart Homes Program.

Redemptions from Non-Participating Retailer's (Retailer may not be located in the service territory)	City	State	Clothes Washer	Clothes Dryer	Smart Thermostat	Freezer	Refrigerator	Evaporative Cooler - Tier 1	Evaporative Cooler - Tier 2	Evaporative Cooler - Tier 2, Self-Installed	Heat Pump Water Heater, Self-installed	Insulation-Attic	Insulation-Floor	Insulation-Wall	Windows
ABC Seamless Siding	Cheyenne	WY													x
AJ MADISON INC	Brooklyn	NY	x												
Amazon.com	Online	N/A					x								
BestBuy.com	Online	N/A	x			x									
Bomgaars	Online	N/A								x					
Comercial Thermal Solutions, Inc	Spring Lake	NJ													
Hal Lee Plumbing & Heating LLC	Cody	WY									x				
Home Depot #6002	Cheyenne	WY				x									
Home Depot #6004	Sheridan	WY					x								
HomeDepot.com	Online	N/A					x								
Jet.com	Online	N/A						x							
Lowe's of Billings	Billings	MT	x				x								
Pro-Build #922	Cody	WY													x
Sears #2242	Billings	MT	x												
Sears.com	Online	N/A	x				x								
Short Construction	Riverton	WY										x			

List of 2016 Participating HVAC Trade Allies

Includes a summary of measures that were redeemed in 2016 from each trade ally

Trade Ally Name (Trade ally may be located outside of the territory)	City	State	Central Air Conditioner Best Practice Installation & Sizing	Efficient Gas Furnace with ECM	Electric System to Heat Pump Conversion	Electric System to Heat Pump Conversion - Tier 1	Electric System to Heat Pump Conversion - Tier 2	Evaporative Cooler - Tier 2	Heat Pump to Heat Pump Upgrade - Tier 1	Heat Pump, Ductless	Heat Pump, Multi- Head, Ductless	Heat Pump, Single- Head, Ductless	No Redemptions in 2016
Air Comfort Complete, Inc.	Casper	WY			x								
Air Innovations	Casper	WY	x	x				x					
Arrowhead Inc.	Casper	WY								x			
Aspen Valley Heating & Air	Laramie	WY		x									
Baker Heating & Air Conditioning	Lander	WY								x			
CK Mechanical	Mills	WY	x										
CK Mechanical Plumbing & Heating Inc.	Casper	WY								x			
Sweetwater Aire LLC	Lander	WY						x					
Tim Force Tin Shop Inc.	Casper	WY			x				x				

List of 2016 Participating Manufactured Homes Trade Allies

Includes a summary of measures that were redeemed in 2016 from each trade ally

Trade Ally Name (Trade ally may be located outside of the territory)	City	Manufactured Homes Duct Sealing	No redemptions in 2016
There was no trade ally participating in the manufactured homes - duct sealing measure in Wyoming in 2016.			

List of 2016 Participating Plumbing Trade Allies

Includes a summary of measures that were redeemed in 2016 from each trade ally

Trade Ally Name (Trade ally may be located outside of the territory)	City	Heat Pump Water Heaters	No Redemptions in 2016
There were no plumbing trade ally in Wyoming in 2016.			

List of 2016 Participating Weatherization Trade Allies

Includes a summary of measures that were redeemed in 2016 from each trade ally

Trade Ally Name (Trade ally may be located outside of the territory)	City	State	Duct Sealing & Insulation	Insulation-Attic	Insulation-Floor	Insulation-Wall	Windows	No	Redemptions in 2016
Advanced Insulation	Morgan	WY		x					
Advanced Window Products, Inc.	Salt Lake City (UT					x		
Home Energy Solutions	Centerville	WY	x						
Insulation Inc.	Rock Springs	WY		x		x			
K-Designers	Billings	MT					x		
Ram Insulation	Casper	WY		x		x			

Percentage of 2016 Applications by Category

Customer City	% of All Applications	% of Appliance & Fixture Applications	% of HVAC Applications	% of Manufactured Homes Applications	% of Kits Applications
ATLANTIC CITY	0.18%	0.00%	1.06%	0.00%	0.13%
BAR NUNN	0.90%	1.62%	0.00%	0.00%	0.80%
BEAR RIVER	0.36%	0.40%	1.06%	0.00%	0.27%
BIG PINEY	0.18%	0.40%	0.00%	0.00%	0.13%
BOULDER	0.45%	0.81%	0.00%	0.00%	0.40%
BUFFALO	1.52%	0.81%	0.00%	0.00%	1.99%
BYRON	0.09%	0.00%	0.00%	0.00%	0.13%
CASPER	29.75%	35.63%	23.40%	0.00%	28.42%
CODY	3.58%	4.86%	1.06%	0.00%	3.32%
CORA	0.09%	0.00%	0.00%	0.00%	0.13%
DANIEL	0.36%	0.00%	0.00%	0.00%	0.40%
DIAMONDVILLE	0.36%	0.00%	1.06%	0.00%	0.40%
DOUGLAS	3.14%	2.43%	1.06%	0.00%	3.59%
EVANSTON	2.96%	5.67%	1.06%	0.00%	2.26%
EVANSVILLE	0.90%	0.81%	1.06%	0.00%	0.93%
GLENDO	0.09%	0.00%	0.00%	0.00%	0.13%
GLENROCK	0.45%	0.40%	0.00%	0.00%	0.40%
GREEN RIVER	4.84%	8.91%	6.38%	0.00%	3.45%
GREYBULL	1.08%	0.00%	0.00%	0.00%	1.59%
HANNA	0.09%	0.40%	0.00%	0.00%	0.00%
KEMMERER	1.61%	2.02%	1.06%	0.00%	1.46%
KIRBY	0.09%	0.00%	0.00%	0.00%	0.13%
LABARGE	0.09%	0.00%	0.00%	0.00%	0.13%
LANDER	4.03%	0.81%	6.38%	0.00%	4.91%
LARAMIE	8.69%	2.83%	35.11%	0.00%	7.44%
LOVELL	1.34%	0.40%	0.00%	0.00%	1.86%
MARBLETON	0.18%	0.00%	1.06%	0.00%	0.13%
MEETEETSE	0.09%	0.40%	0.00%	0.00%	0.00%
MILLS	1.25%	0.40%	3.19%	0.00%	1.33%
PINEDALE	1.08%	0.40%	0.00%	0.00%	1.33%
POWELL	0.90%	0.40%	0.00%	0.00%	1.20%
RAWLINS	3.14%	4.45%	2.13%	0.00%	2.92%
RIVERTON	6.36%	2.83%	1.06%	0.00%	8.23%
ROCK SPRINGS	12.46%	20.65%	12.77%	0.00%	9.56%
ROLLING HILLS	0.09%	0.00%	0.00%	0.00%	0.13%
SHOSHONI	0.09%	0.00%	0.00%	0.00%	0.13%
THERMOPOLIS	2.87%	0.00%	0.00%	0.00%	4.25%
WAPITI	0.09%	0.00%	0.00%	0.00%	0.13%
WORLAND	4.21%	1.21%	0.00%	0.00%	5.84%



Appendix 3

wattsmart Business Energy Efficiency Alliance

The following is a list of contractors, distributors and other businesses participating in Rocky Mountain Power's Energy Efficiency Alliance displayed in random order (unless sorted by the user) based on the search criteria selected. This listing is provided solely as a convenience to our customers. Rocky Mountain Power does not warrant or guarantee the work performed by these participating vendors. You are solely responsible for any contract with a participating vendor and the performance of any vendor you have chosen.

An asterisk (*) indicates Rocky Mountain Power Outstanding Contribution Award winning trade allies in 2013, 2014 and/or 2015.

Search Criteria:

Selected State(s): Wyoming
Specialties: HVAC - evaporative
 HVAC - unitary
Business Type: --ANY--

Search Results: 43 - Date and Time: 03/30/2017 02:53:28 PM

Company Name	Specialties	Business Type	Join Date	Projects Completed
Royal Engineering, Inc. 2335 S. State Street Suite 100, Provo, UT - 84606 Phone: 801-375-2228 Website: www.royaleng.com	Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Engineering Firm	12/31/2014	Completed
Van Boerum & Frank Associates 330 South 300 East Salt Lake City, UT - 84111 Phone: 801-530-3148 Website: www.vbfa.com	Building envelope Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Architect Engineering Firm Other	01/01/2012	Completed
Smart Building Solutions 2876 South 460 West Salt Lake City, UT - 84115 Phone: 801-733-6000 Website: www.intellivex.com	Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment Other: Other Specialty	Distributor Manufacturer - Rep	03/04/2015	Completed
Johnson Controls, Inc. 2255 Technology Parkway West Valley City, UT - 84119 Phone: 801-903-7532	Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Contractor Manufacturer - Rep	06/01/2007	Completed
PVE, Inc* 1040 North 2200 West, Suite 100 Salt Lake City, UT - 84107 Phone: 801-359-3158	Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Engineering Firm	07/29/2013	Completed
Fireside Plumbing, Heating & Electric P.O. Box 230 Evanston, WY - 82931 Phone: 307-789-6716 Website: www.firesidewyo.com	HVAC - evaporative HVAC - unitary Motors and VFDs	Contractor	03/22/2013	Completed
Engineering System Solutions DBA ES2 4943 N 29 E Suite A Idaho Falls, ID - 83401 Phone: 208-552-9874 Website: www.es2eng.com	Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Engineering Firm	05/08/2014	Completed

Mountain West Electrical Services, LLC P.O. Box 2102 208 Fayette Pole Creek Road, Pinedale, WY - 82941 Phone: 307-367-8400 Website: www.mwesllc.com	Specialties Compressed Air Controls Farm and Dairy Food Service HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs Office Equipment Other: Other Specialty	Business Type Contractor	Join Date 03/26/2013	Projects Completed 1
WHW Engineering Inc. 8619 Sandy Parkway #101 Sandy, UT - 84070 Phone: 801-466-4021	Specialties HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Engineering Firm	Join Date 02/23/2015	Projects Completed 1
Crum Electric Supply - Cheyenne 1010 Dunn Avenue South Cheyenne, WY - 82001 Phone: 307-778-8442 Website: www.crum.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 05/01/2009	Projects Completed 1
Intermountain Electric Service, Inc. - Riverton 701 S Federal Blvd Riverton, WY - 82501 Phone: 307-856-7321 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 1
Optica Energy Management, LLC 1772 Ross Dr Ogden, UT - 84403 Phone: 888-442-4866 Website: www.opticaenergy.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor Other: Energy Management Company	Join Date 04/11/2013	Projects Completed 17
Intermountain Electric Service, Inc. - Evanston 110 Commerce Dr Evanston, WY - 82930 Phone: 307-789-6500 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 1
Allred's Incorporated - Logan 642 North 1000 West Unit # 104 Logan, UT - 84321 Phone: 435-774-1200 Website: www.allreds.net	Specialties HVAC - unitary	Business Type Distributor	Join Date 05/11/2011	Projects Completed 1
Aspen Engineering and Environmental LLC 140 Aspen Circle Park City, UT - 84098 Phone: 435-565-1535 Website: www.a2e-llc.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Engineering Firm	Join Date 03/18/2013	Projects Completed 1
Mountain West Mechanical 2336 W. 5200 S. Rexburg, ID - 83440 Phone: 208-356-0370 Website: www.mountainwestmechanical.com	Specialties HVAC - evaporative HVAC - unitary	Business Type Contractor	Join Date 03/17/2014	Projects Completed 1
Intermountain Electric Service, Inc. - Rock Springs 507 Mitchelson Rock Springs, WY - 82901 Phone: 307-362-1417 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 2

MKK Consulting Engineers Inc. 4760 S. Highland Drive Suite 106 Salt Lake City, UT - 84115 Phone: 303-796-6000	Specialties Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 01/18/2016	Projects Completed
Musgrove Engineering, PA 234 Whisperwood Way Boise, ID - 83709 Phone: 208-384-0585 Website: musgrovepa.com	Specialties Compressed Air Controls Food Service HVAC - evaporative HVAC - unitary Motors and VFDs Office Equipment	Business Type Engineering Firm	Join Date 07/28/2015	Projects Completed
Casper Electric Inc 3150 E Yellowstone Hwy Casper, WY - 82609 Phone: 307-237-3003	Specialties Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Contractor Engineering Firm	Join Date 01/01/2009	Projects Completed 35
Homespun Electrical, LLC PO Box 1042 Lander, WY - 82520 Phone: 307-851-2079	Specialties Appliances Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Contractor	Join Date 02/27/2015	Projects Completed
McKinstry Essention, LLC 112 N. Rubey Dr. Suite 200, Golden, CO - 80403 Phone: 435-632-8433 Website: www.mckinstry.com	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Irrigation Motors and VFDs Other: Other Specialty	Business Type Engineering Firm	Join Date 02/12/2014	Projects Completed
Big Horn Heating & Cooling, Inc 401 Grace Ave Worland, WY - 82401 Phone: 307-347-3438 Website: bighornheatingandcooling.com	Specialties HVAC - unitary	Business Type Contractor	Join Date 06/27/2016	Projects Completed
Honeywell International 2371 S. Presidents Way Suite A Salt Lake City, UT - 84120 Phone: 801-978-7136 Website: honeywell.com	Specialties Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Contractor Distributor Manufacturer - Rep	Join Date 05/01/2006	Projects Completed
Lux Energy Group 1111 South 120 East Farmington, UT - 84025 Phone: 801-989-8375	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm Other: Energy Resource Managers	Join Date 10/13/2015	Projects Completed
Intermountain Electric Service, Inc. - Big Piney P.O. Box 40 Big Piney, WY - 83113 Phone: 307-276-3049 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 03/03/2009	Projects Completed
Trane* 2817 S. 1030 W. Salt Lake City, UT - 84119 Phone: 801-486-0500 Website: www.trane.com	Specialties Controls HVAC - unitary Motors and VFDs	Business Type Distributor Manufacturer - Rep	Join Date 03/01/2005	Projects Completed

West Plains Engineering, Inc. 145 S Durbin Suite 205, Casper, WY - 82601 Phone: 307-234-9484 Website: www.westplainsengineering.com	Specialties Building envelope HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Business Type Engineering Firm	Join Date 04/08/2013	Projects Completed 11
Riverton Sheet Metal Works Inc 217 N 3rd E Riverton, WY - 82501 Phone: 307-856-3431	Specialties HVAC - unitary Motors and VFDs	Business Type Contractor	Join Date 01/01/2009	Projects Completed Completed
RealWinWin, Inc. 1926 Arch Street, 4F Philadelphia, PA - 19103 Phone: 215-732-4480 x 349 Website: www.realwinwin.com	Specialties Appliances Building envelope Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Other: Energy Efficiency Incentive Administration and Consultation	Join Date 10/14/2013	Projects Completed 43
Architectural Nexus, Inc. 2505 East Parleys Way Salt Lake City, UT - 84109 Phone: 801-924-5000 Website: www.archnexus.com	Specialties Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Architect	Join Date 08/18/2014	Projects Completed Completed
Hussmann Corporation 1385 W 2200 St Salt Lake City, UT - 84119 Phone: 805-458-7615 Website: hussmann.com	Specialties Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Manufacturer - Rep	Join Date 01/14/2015	Projects Completed Completed
Engineered Systems Assoc., Inc. 1355 E. Center Street Pocatello, ID - 83201 Phone: 208-233-0501	Specialties Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Engineering Firm	Join Date 01/10/2014	Projects Completed Completed
Encentiv Energy, LLC 1501 Ardmore Blvd. Suite 102, Pittsburgh, PA - 15221 Phone: 412-723-1516 Website: www.encentivenergy.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Other: Energy Efficiency Analytics Other: Energy Efficiency Rebate Processing	Join Date 11/11/2015	Projects Completed 1
Case, Lowe & Hart, Inc. 2484 Washington Blvd. Suite 510, Ogden, UT - 84401 Phone: 801-399-5821 Website: www.clhae.com	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Architect Engineering Firm	Join Date 05/17/2013	Projects Completed Completed
American Mechanical Systems Service, LLC 7530 South State Street Midvale, UT - 84047 Phone: 801-428-0400 Website: www.ams-ut.com	Specialties Controls HVAC - unitary Motors and VFDs	Business Type Contractor	Join Date 11/30/2012	Projects Completed Completed
Washakie Electric, Inc 714 S 11th Street Worland, WY - 82401 Phone: 307-347-4215	Specialties Controls HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 09/14/2016	Projects Completed Completed

Utah Yamas Controls Inc.* 13526 S. 110 W. Draper, UT - 84020 Phone: 801-990-1950 Website: www.utahyamas.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Business Type Contractor Distributor Engineering Firm Manufacturer - Rep	Join Date 01/21/2013	Projects Completed 1
Engineering Economics, Inc. 780 Simms Street Suite 210 Golden, CO - 80401 Phone: 800-869-6902	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary	Business Type Engineering Firm	Join Date 01/20/2014	Projects Completed
HD Supply Facilities Maintenance, Ltd. 10641 Scripps Summit Court San Diego, CA - 92131 Phone: 858-831-2231 Website: www.hdsupplysolutions.com	Specialties Appliances HVAC - evaporative HVAC - unitary	Business Type Distributor	Join Date 01/22/2014	Projects Completed
Colvin Engineering Associates, Inc. 244 W 300 N Suite 200, Salt Lake City, UT - 84103 Phone: 801-322-2400	Specialties Controls HVAC - evaporative HVAC - unitary Other: Other Specialty	Business Type Architect Engineering Firm	Join Date 04/29/2013	Projects Completed
WESCO Distribution - Wyoming HC 70 500 Mainline Green River, WY - 82935 Phone: 307-875-4910 Website: wesco.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 02/01/2009	Projects Completed 15
Harris Mechanical Intermountain 1925 South Milestone Drive Suite E, Salt Lake City, UT - 84104 Phone: 801-433-2640 Website: www.hmcc.com	Specialties HVAC - evaporative HVAC - unitary	Business Type Contractor	Join Date 01/27/2014	Projects Completed

The following is a list of contractors, distributors and other businesses participating in Rocky Mountain Power's Energy Efficiency Alliance displayed in random order (unless sorted by the user) based on the search criteria selected. This listing is provided solely as a convenience to our customers. Rocky Mountain Power does not warrant or guarantee the work performed by these participating vendors. You are solely responsible for any contract with a participating vendor and the performance of any vendor you have chosen.

An asterisk (*) indicates Rocky Mountain Power Outstanding Contribution Award winning trade allies in 2013, 2014 and/or 2015.

Search Criteria:

Selected State(s): Wyoming
Specialties: Lighting
Business Type: --ANY--

Search Results: 128 - Date and Time: 03/30/2017 02:56:23 PM

Company Name	Specialties	Business Type	Join Date	Projects Completed
307 Electric 2159 SW Wyoming Blvd. Casper, WY - 82604 Phone: 307-337-1556 Website: www.307electric.com	Controls Lighting Motors and VFDs	Contractor	01/13/2016	Projects Completed
A.C.R. Electric LLC 2671 Sand Draw Thermopolis, WY - 82443 Phone: 307-921-1343	Controls Farm and Dairy Irrigation Lighting	Contractor	04/20/2015	Projects Completed
AC Electric, LLC Box 991, 492 E South St. Powell, WY - 82435 Phone: 307-754-5872	Lighting	Contractor	03/07/2014	Projects Completed
American Electric 4145 Almy Rd 105 Evanston, WY - 82930 Phone: 307-789-3130	Lighting	Contractor	01/01/2009	Projects Completed 5
American Electric Company, Inc. 78 West 13775 South, Suite 9 Draper, UT - 84020 Phone: 801-254-0782 Website: www.americanelectric.cc	Appliances Building envelope Controls Lighting Motors and VFDs Other: Other Specialty	Contractor	04/06/2015	Projects Completed
Amp Electric PO Box 1389 Riverton, WY - 82501 Phone: 307-463-7345	Lighting	Contractor	11/01/2011	Projects Completed 10
Anchor Electric, Inc. PO Box 40046 Casper, WY - 82604 Phone: 307-234-8799	Lighting	Contractor	02/13/2009	Projects Completed 24
Architectural Nexus, Inc. 2505 East Parleys Way Salt Lake City, UT - 84109 Phone: 801-924-5000 Website: www.archnexus.com	Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Architect	08/18/2014	Projects Completed
Arrow Electric Inc 1300 E Richards Douglas, WY - 82633 Phone: 307-358-2334 Website: arrowelectricinc.com	Lighting	Contractor	08/01/2009	Projects Completed 1

Aspen Light Electric LLC 499 Rock Creek Rd. Buffalo, WY - 82834 Phone: 307-684-8583	Specialties Lighting	Business Type Contractor	Join Date 08/05/2016	Projects Completed 7
Atlantic Electric, Inc. P.O. Box 51163 Casper, WY - 82605 Phone: 307-265-8658	Specialties Lighting	Business Type Contractor	Join Date 11/23/2009	Projects Completed 11
Bastion Technologies, LLC 175 W 7065 S Midvale, UT - 84047 Phone: 800-328-6024 Website: www.bastiontech.com	Specialties Lighting	Business Type Distributor Manufacturer - Rep Other: consultant	Join Date 07/30/2014	Projects Completed 24
Batteries Plus Bulbs (#909) 2731 S 5600 W Ste. D, West Valley City, UT - 84120 Phone: 801-965-6000 x 3 Website: www.batteriesplusbulbs.com	Specialties Lighting	Business Type Distributor Other: Commercial/Industrial Lamp Sales	Join Date 09/01/2016	Projects Completed 2
BKJ Holdings, LLC 3458 E Fairway Lane Spanish Fork, UT - 84660 Phone: 801-636-5969	Specialties Lighting	Business Type Distributor Manufacturer - Rep	Join Date 01/06/2015	Projects Completed 2
Boyle Electric Inc 707 Garfield ST Lander, WY - 82520 Phone: 307-332-8139 Website: boyleelectric.com	Specialties Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 3
Bright Star Energy Management, LLC 214 S. Cole Rd. Boise, ID - 83709 Phone: 208-922-6460 Website: brightstarenergy.net	Specialties Lighting	Business Type Other	Join Date 07/01/2012	Projects Completed 18
Brosius Electric, LLC 912 Jersey Ave Lovel, WY - 82431 Phone: 307-250-1076	Specialties Lighting	Business Type Contractor	Join Date 01/31/2014	Projects Completed 1
C.D.'s Electric Inc 242 Aspen Hills Court Evanston, WY - 82930 Phone: 307-679-1734	Specialties Lighting	Business Type Contractor	Join Date 06/01/2009	Projects Completed 4
Candle3 LLC 6385 Corporate Dr. Colorado Springs, CO - 80919 Phone: 719-930-9099 Website: www.candle3.com	Specialties Controls Lighting	Business Type Distributor Manufacturer - Rep	Join Date 11/21/2014	Projects Completed 1
CAO Group, Inc. 4628 W. Skyhawk Drive West Jordan, UT - 84084 Phone: 801-256-9282 Website: www.caolighting.com	Specialties Lighting	Business Type Engineering Firm Other: Manufacturer	Join Date 11/16/2015	Projects Completed 4
Casper Electric Inc 3150 E Yellowstone Hwy Casper, WY - 82609 Phone: 307-237-3003	Specialties Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Contractor Engineering Firm	Join Date 01/01/2009	Projects Completed 35

Casper Winlectric 1743 East Yellowstone Hwy Casper, WY - 82601 Phone: 307-235-5222	Specialties Lighting	Business Type Distributor	Join Date 01/24/2013	Projects Completed Completed
Castle Rock Electric P.O. Box 339 Green River, WY - 82935 Phone: 307-875-3012	Specialties Lighting	Business Type Contractor	Join Date 04/10/2010	Projects Completed 30
CCMS Lighting, Inc. 88 A Elm Street Hopkinton, MA - 01748 Phone: 508-435-5837 Website: ccmslighting.com	Specialties Lighting	Business Type Other	Join Date 05/01/2011	Projects Completed 1
Chesbro Electric Inc 2651 4th Ave W Buffalo, WY - 82834 Phone: 307-684-8613 Website: http://www.chesbroelectricwindsolar.com/	Specialties Lighting	Business Type Contractor	Join Date 09/01/2009	Projects Completed 26
Childress Electric 1219 Dalsy St. Rawlins, WY - 82301 Phone: 307-328-3831	Specialties Lighting	Business Type Contractor	Join Date 09/25/2012	Projects Completed 7
City Service Electric Co. Inc. 1919 E Yellowstone Hwy Casper, WY - 82602 Phone: 307-265-0659	Specialties Lighting	Business Type Contractor	Join Date 01/20/2009	Projects Completed 33
Cobb Electric LLC 903 Leah Douglas, WY - 82633 Phone: 307-351-0440	Specialties Lighting	Business Type Contractor	Join Date 01/01/2009	Projects Completed 5
Codale Electric Supply, Inc - Casper* 3131 Wood Court Casper, WY - 82601 Phone: 702-261-8900 Website: www.codale.com	Specialties Lighting	Business Type Distributor	Join Date 06/27/2013	Projects Completed 1
Codale Electric Supply, Inc - Rock Springs* 1718 Desora Dr Rock Springs, WY - 82901 Phone: 307-922-5000 Website: codale.com	Specialties Lighting	Business Type Distributor	Join Date 02/01/2009	Projects Completed 29
Consolidated Electrical Distributors - Logan, UT* 636 N. 600 W. Logan, UT - 84321 Phone: 435-752-8905	Specialties Farm and Dairy Irrigation Lighting	Business Type Distributor	Join Date 03/26/2005	Projects Completed 71
Consolidated Electrical Distributors - Vernal* 397 South 1000 East Vernal, UT - 84078 Phone: 435-789-9070	Specialties Building envelope Controls Irrigation Lighting Motors and VFDs	Business Type Distributor	Join Date 09/16/2015	Projects Completed Completed
Consolidated Electrical Distributors Inc. - Casper* 3330 E Yellowstone Hwy Casper, WY - 82609 Phone: 307-232-8300 Website: www.cedcasper.shopced.com	Specialties Controls Irrigation Lighting Motors and VFDs	Business Type Distributor	Join Date 11/12/2015	Projects Completed 1

Cooper Lighting 1121 Highway 74 South Peachtree, GA - 30269 Phone: 770-486-3092 Website: www.cooperlighting.com	Specialties Controls Lighting	Business Type Manufacturer - Rep	Join Date 12/13/2012	Projects Completed 0
Crescent Electric Supply - Casper 535 N. Beverly Casper, WY - 82609 Phone: 307-235-5060	Specialties Lighting	Business Type Distributor	Join Date 09/12/2014	Projects Completed 0
Crum Electric Supply - Casper 1165 English Avenue Casper, WY - 82601 Phone: 307-266-6278 Website: crum.com	Specialties Lighting	Business Type Distributor	Join Date 05/01/2009	Projects Completed 3
Crum Electric Supply - Cheyenne 1010 Dunn Avenue South Cheyenne, WY - 82001 Phone: 307-778-8442 Website: www.crum.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 05/01/2009	Projects Completed 0
Crum Electric Supply - Cody 3307 Bighorn Avenue Cody, WY - 82414 Phone: 307-527-5252 Website: www.crum.com	Specialties Lighting	Business Type Distributor	Join Date 05/01/2009	Projects Completed 0
Crum Electric Supply - Gillette 901 Edwards St Gillette, WY - 82718 Phone: 307-682-7203 Website: crum.com	Specialties Lighting	Business Type Distributor	Join Date 05/01/2009	Projects Completed 0
Crum Electric Supply - Rock Springs 800 Elk St Rock Springs, WY - 82901 Phone: 307-362-4415 Website: crum.com	Specialties Lighting	Business Type Distributor	Join Date 05/01/2009	Projects Completed 0
Custom Lighting Services, LLC 9901 South Prosperity Road West Jordan, UT - 84081 Phone: 801-569-9219 Website: www.blackandmcdonald.com	Specialties Controls Lighting	Business Type Contractor Engineering Firm	Join Date 11/01/2013	Projects Completed 0
D&S Electrical 363 West Chubbuck Road Pocatello, ID - 83202 Phone: 208-731-3701	Specialties Lighting Motors and VFDs	Business Type Distributor	Join Date 12/01/2008	Projects Completed 48
Dealers Electrical Supply 928 N. Federal Riverton, WY - 82501 Phone: 307-856-1741 Website: dealerselectrical.com	Specialties Lighting	Business Type Distributor	Join Date 06/19/2012	Projects Completed 0
Delta T Corporation 2348 Innovation Drive Lexington, KY - 40511 Phone: 877-244-3267 Website: www.bigasssolutions.com	Specialties Lighting Other: Other Specialty	Business Type Distributor Manufacturer - Rep	Join Date 11/16/2015	Projects Completed 0
Denver Electrical Contractors 1855 W. Union Ave. Unit V Sheridan , CO - 80110 Phone: 303-432-8879 Website: www.denverelectrical.com	Specialties Lighting Motors and VFDs	Business Type Other: Electrical Design Build Engineering and Construction	Join Date 12/02/2013	Projects Completed 5

DiVi Energy, LLC* 191 North 290 West Lindon, UT - 84042 Phone: 801-243-1811	Specialties Lighting	Business Type Manufacturer - Rep Other	Join Date 01/23/2013	Projects Completed 98
Eagle Electric LLC 6713 W. Yellowstone Hwy Casper, WY - 82604 Phone: 307-266-4404	Specialties Lighting	Business Type Contractor	Join Date 09/27/2012	Projects Completed 2
Eco Safe Lighting 4600 NW Camas Meadows Drive, Suite 210 Camas, WA - 98607 Phone: 360-567-1923 Website: http://www.est-lights.com/about-us/	Specialties Lighting	Business Type Distributor	Join Date 02/11/2013	Projects Completed 2
Electric Service Company 615 SW Wyoming Blvd Mills, WY - 82644 Phone: 307-266-1000	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 03/17/2014	Projects Completed 2
Electrical Connections, Inc. 2214 Upland Suite A Rock Springs, WY - 82901 Phone: 307-382-0647	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 02/03/2016	Projects Completed 2
Electrical Dynamics, Inc 118 S 5th West Riverton, WY - 82501 Phone: 307-856-4677 Website: www.ediwyo.com	Specialties Lighting	Business Type Contractor	Join Date 06/04/2014	Projects Completed 23
Electrical Marketing Solutions (DBA) EMS 2139 S West Temple Salt Lake City, UT - 84115 Phone: 801-869-1445 Website: http://emsreps.com/	Specialties Controls Lighting	Business Type Manufacturer - Rep	Join Date 12/31/2014	Projects Completed 5
Electrical Solutions, LLC. 1502 Mill St. Laramie, WY - 82072 Phone: 307-742-7483	Specialties Lighting	Business Type Contractor	Join Date 04/11/2011	Projects Completed 7
Electrical Support Services LLC 1037 E 1400 N. Shelly, ID - 83274 Phone: 208-251-6022	Specialties Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 03/12/2015	Projects Completed 2
Elysium Energy LLC 14466 South Long Ridge Drive Herriman, UT - 84096 Phone: 801-440-6821	Specialties Lighting Other: Other Specialty	Business Type Other	Join Date 04/30/2015	Projects Completed 17
Encentiv Energy, LLC 1501 Ardmore Blvd. Suite 102, Pittsburgh, PA - 15221 Phone: 412-723-1516 Website: www.encentivenergy.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Other: Energy Efficiency Analytics Other: Energy Efficiency Rebate Processing	Join Date 11/11/2015	Projects Completed 1
Energy Efficient Lighting 2228 Bryan Circle Salt Lake City, UT - 84108 Phone: 801-913-1965	Specialties Lighting	Business Type Distributor	Join Date 09/16/2013	Projects Completed 1

Energy Planning Associates, Inc (DBA) Envirobrite 148 Maritime Dr Sanford, FL - 32771 Phone: 407-302-0001 Website: www.envirobrite.net	Specialties Lighting	Business Type Manufacturer - Rep	Join Date 07/24/2015	Projects Completed 0
Engineering Design Associates 1607 CY Avenue Suite 303, Casper, WY - 82604 Phone: 307-766-5033 Website: EDAengineering.com	Specialties Lighting	Business Type Engineering Firm	Join Date 03/10/2010	Projects Completed 0
Engineering System Solutions DBA ES2 4943 N 29 E Suite A Idaho Falls, ID - 83401 Phone: 208-552-9874 Website: www.es2eng.com	Specialties Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 05/08/2014	Projects Completed 0
Envision Electric, Inc. P.O. Box 2022 Casper, WY - 82602 Phone: 307-262-9990	Specialties Lighting	Business Type Contractor	Join Date 04/07/2009	Projects Completed 2
Express Lighting LLC 7050 South State Street Midvale, UT - 84047 Phone: 801-617-1133 Website: www.express.lighting	Specialties Lighting	Business Type Distributor Manufacturer - Rep	Join Date 12/01/2015	Projects Completed 4
Fanlight Corp 2000 S Grove Ave Bldg B Ontario, CA - 91761 Phone: 909-930-6868 Website: plusriteusa.com / mynaturazled.com	Specialties Lighting	Business Type Manufacturer - Rep	Join Date 02/22/2016	Projects Completed 0
Fremont Electric Inc. 910 S Adams Laramie, WY - 82070 Phone: 307-721-4176	Specialties Lighting	Business Type Contractor	Join Date 01/26/2009	Projects Completed 27
Frontier Electric P.O. Box 937 Pinedale, WY - 82941 Phone: 307-367-6434	Specialties Lighting	Business Type Contractor	Join Date 03/01/2012	Projects Completed 8
GE 664 East 1300 North Pleasant Grove, UT - 84062 Phone: 801-785-8838 Website: www.gelighting.com	Specialties Controls Lighting	Business Type Manufacturer - Rep	Join Date 09/04/2014	Projects Completed 0
Get Western Electric 15 Flint Trail, p.o. box 1974 Pinedale, WY - 82941 Phone: 307-749-1249	Specialties Appliances Controls Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 03/23/2016	Projects Completed 0
Grainger, Inc. 1110 Wilkins Cir Casper, WY - 82601 Phone: 307-577-5797 Website: www.grainger.com	Specialties Lighting	Business Type Distributor	Join Date 02/24/2014	Projects Completed 3

Graybar Electric - Billings MT 1465 Monad Road Billings, MT - 59102 Phone: 406-237-2569 Website: www.graybar.com	Specialties Lighting	Business Type Distributor	Join Date 01/17/2014	Projects Completed 7
Green Light National, LLC* 1001 South 400 East Orem, UT - 84077 Phone: 801-722-8677 Website: www.greenlightnational.com	Specialties Lighting	Business Type Contractor Distributor	Join Date 02/18/2015	Projects Completed 40
H & H Electric 125 Highway 93 Douglas, WY - 82633 Phone: 307-358-1826	Specialties Lighting	Business Type Contractor	Join Date 08/24/2009	Projects Completed 4
Hatch Lighting 4133 N 45 E Idaho Falls, ID - 83401 Phone: 208-200-3000	Specialties Lighting	Business Type Distributor	Join Date 05/06/2014	Projects Completed 12
HD Supply Utilities 836 N Glenn Rd Casper, WY - 82604 Phone: 307-237-4719 Website: HDSupply.com	Specialties Lighting	Business Type Distributor	Join Date 12/01/2008	Projects Completed 3
Hedlund Electric, LLC 7929 W. Sims Creek Rd. Casper, WY - 82604 Phone: 307-333-4720	Specialties Lighting	Business Type Contractor	Join Date 09/16/2014	Projects Completed 3
Heil Electric LLC 440 Buena Vista PO Box 952 Lander, WY - 82520 Phone: 307-332-5197	Specialties Lighting	Business Type Contractor	Join Date 03/11/2009	Projects Completed 5
Homespun Electrical, LLC PO Box 1042 Lander, WY - 82520 Phone: 307-851-2079	Specialties Appliances Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Contractor	Join Date 02/27/2015	Projects Completed 1
Hussmann Corporation 1385 W 2200 St Salt Lake City, UT - 84119 Phone: 805-458-7615 Website: hussmann.com	Specialties Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Manufacturer - Rep	Join Date 01/14/2015	Projects Completed 1
Instrument Electric Service Inc 918 Pendell Blvd Mills, WY - 82644 Phone: 307-235-2009 Website: www.instrumentelectric.com	Specialties Controls Lighting Motors and VFDs Other: Other Specialty	Business Type Contractor Distributor Engineering Firm Other: UL panel Shop	Join Date 04/25/2013	Projects Completed 1
Intermountain Electric Service, Inc. - Evanston 110 Commerce Dr Evanston, WY - 82930 Phone: 307-789-6500 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 1

Intermountain Electric Service, Inc. - Riverton 701 S Federal Blvd Riverton, WY - 82501 Phone: 307-856-7321 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 2
Intermountain Electric Service, Inc. - Big Piney P.O. Box 40 Big Piney, WY - 83113 Phone: 307-276-3049 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 03/03/2009	Projects Completed 2
Intermountain Electric Service, Inc. - Rock Springs 507 Mitchelson Rock Springs, WY - 82901 Phone: 307-362-1417 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 2
Jadeco Inc. P.O. Box 788 Thermopolis, WY - 82443 Phone: 307-864-2505 Website: jadecolectric.com	Specialties Lighting	Business Type Contractor	Join Date 08/27/2009	Projects Completed 2
JRC Inc. 3041 West 2100 South Salt Lake City, UT - 84119 Phone: 801-972-3970 Website: jrclight.com	Specialties Controls Lighting	Business Type Manufacturer - Rep Other	Join Date 06/18/2007	Projects Completed 14
Larsen Electric, LLC 250 Laurel Lane Chubbuck, ID - 83202 Phone: 208-237-2058 Website: larsenelectric.net	Specialties Lighting	Business Type Contractor	Join Date 03/23/2016	Projects Completed 2
LMS - Lighting Maintenance Service - Wyoming* 663 West 4330 South Salt Lake City, UT - 84123 Phone: 801-281-0400	Specialties Lighting	Business Type Other: Lighting Maintenance	Join Date 09/17/2014	Projects Completed 14
Loeb Lighting Services 1800 E 5th Ave Columbia, OH - 43219 Phone: 800-866-5616	Specialties Controls Lighting	Business Type Distributor	Join Date 03/16/2015	Projects Completed 2
LONG Building Technologies, Inc. P.O. Box 51089 3534 Salt Creek Highway, Casper, WY - 82601 Phone: 307-265-5997 Website: www.long.com	Specialties Lighting	Business Type Distributor Manufacturer - Rep	Join Date 09/27/2012	Projects Completed 1
LONG Buildings Technologies, Inc. - Wyoming 3534 Salt Creek Highway Casper, WY - 82601 Phone: 307-265-5997 Website: www.long.com	Specialties Lighting	Business Type Contractor	Join Date 01/19/2009	Projects Completed 2
Lux Energy Group 1111 South 120 East Farmington, UT - 84025 Phone: 801-989-8375	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm Other: Energy Resource Managers	Join Date 10/13/2015	Projects Completed 2

Energy Efficiency Alliance



Mark Clary 2302 West 8540 South West Jordan, UT - 84088 Phone: 801-233-0882	Specialties Lighting	Business Type Architect	Join Date 08/08/2013	Projects Completed Completed
MARS Electric p.o. box 732 1664 Wyoming Ave, Laramie, WY - 82073 Phone: 307-760-6943	Specialties Appliances Lighting	Business Type Contractor	Join Date 07/16/2013	Projects Completed Completed
MKK Consulting Engineers Inc. 4760 S. Highland Drive Suite 106 Salt Lake City, UT - 84115 Phone: 303-796-6000	Specialties Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 01/18/2016	Projects Completed Completed
Modern Electric Co. 246 W. 1st Street Casper, WY - 82601 Phone: 307-266-1711 Website: modern-electric.com	Specialties Lighting	Business Type Contractor	Join Date 01/19/2009	Projects Completed 189
Mountain West Electrical Services, LLC P.O. Box 2102 208 Fayette Pole Creek Road, Pinedale, WY - 82941 Phone: 307-367-8400 Website: www.mwesllc.com	Specialties Compressed Air Controls Farm and Dairy Food Service HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs Office Equipment Other: Other Specialty	Business Type Contractor	Join Date 03/26/2013	Projects Completed 1
Northwestern Electric PO Box 2781 Casper, WY - 82602 Phone: 307-266-4206	Specialties Lighting	Business Type Contractor	Join Date 02/13/2009	Projects Completed 5
Optica Energy Management, LLC 1772 Ross Dr Ogden, UT - 84403 Phone: 888-442-4866 Website: www.opticaenergy.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor Other: Energy Management Company	Join Date 04/11/2013	Projects Completed 17
Ovation Engineering & Consulting 1113 N Victoria Way Salt Lake City, UT - 84116 Phone: 801-871-0900	Specialties Controls Lighting	Business Type Engineering Firm	Join Date 12/08/2014	Projects Completed Completed
Pacheco Company LLC 3646 E. Summer Hill Salt Lake City, UT - 84121 Phone: 801-541-3375 Website: www.pachecoco.com	Specialties Lighting Other: Other Specialty	Business Type Contractor Distributor Manufacturer - Rep	Join Date 02/12/2015	Projects Completed Completed
Paradise Valley Electric Inc. 120 Paradise Valley Rd Riverton, WY - 82501 Phone: 307-856-9296	Specialties Lighting	Business Type Contractor	Join Date 03/03/2009	Projects Completed 5
Perfect Power Electric Inc. P.O. Box 201 Lander, WY - 82520 Phone: 307-332-7184	Specialties Lighting	Business Type Contractor	Join Date 07/09/2009	Projects Completed 6

Prairie Dog Electric 106 State St Saratoga, WY - 82331 Phone: 307-326-8534	Specialties Building envelope Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 12/04/2015	Projects Completed 7
Premier Site Development, LLC 144 Sauk Trail Boulder, WY - 82923 Phone: 307-537-3359	Specialties Lighting Motors and VFDs	Business Type Contractor	Join Date 04/18/2016	Projects Completed 1
Primary Electric Inc. 2332 Cottonwood Laramie, WY - 82070 Phone: 307-742-7447	Specialties Lighting	Business Type Contractor	Join Date 01/26/2009	Projects Completed 5
Process Systems International P.O. Box 6187 103N. 5th East, Riverton, WY - 82501 Phone: 307-856-4600 Website: www.prosystemsintl.com	Specialties Controls Lighting Motors and VFDs Office Equipment	Business Type Contractor	Join Date 11/12/2014	Projects Completed 13
ProTech Electric Inc 6651 White Rock Dr Casper, WY - 82604 Phone: 307-265-8045 Website: protechelectric.net	Specialties Lighting	Business Type Contractor	Join Date 01/01/2009	Projects Completed 22
PVE, Inc* 1040 North 2200 West, Suite 100 Salt Lake City, UT - 84107 Phone: 801-359-3158	Specialties Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 07/29/2013	Projects Completed 1
RealWinWin, Inc. 1926 Arch Street, 4F Philadelphia, PA - 19103 Phone: 215-732-4480 x 349 Website: www.realwinwin.com	Specialties Appliances Building envelope Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Other: Energy Efficiency Incentive Administration and Consultation	Join Date 10/14/2013	Projects Completed 43
Rexel Holdings USA 2004 East Allison Rd. Cheyenne, WY - 82007 Phone: 307-638-8470 Website: www.rexelholdingsusa.com	Specialties Controls Lighting Motors and VFDs	Business Type Distributor	Join Date 02/16/2016	Projects Completed 1
Royal Engineering, Inc. 2335 S. State Street Suite 100, Provo, UT - 84606 Phone: 801-375-2228 Website: www.royaleng.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 12/31/2014	Projects Completed 1
Smart Building Solutions 2876 South 460 West Salt Lake City, UT - 84115 Phone: 801-733-6000 Website: www.intellivex.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment Other: Other Specialty	Business Type Distributor Manufacturer - Rep	Join Date 03/04/2015	Projects Completed 1
Sprecher Electric 128 N Center Casper, WY - 82601 Phone: 307-265-8135	Specialties Lighting	Business Type Contractor Distributor	Join Date 02/26/2009	Projects Completed 26

Summit Electric, LLC 490 Foster Road Casper, WY - 82601 Phone: 307-577-1131	Specialties Lighting	Business Type Contractor Distributor	Join Date 02/01/2009	Projects Completed 14
The Lighting Agency 2661 17th Street Denver, CO - 80211 Phone: 303-455-1012 Website: www.thelightingagency.com	Specialties Controls Lighting	Business Type Manufacturer - Rep	Join Date 12/10/2014	Projects Completed 7
Titan LED - North Logan 641 E 2200 N North Logan, UT - 84341 Phone: 801-784-8260 Website: www.titanled.net	Specialties Lighting	Business Type Manufacturer - Rep	Join Date 07/08/2014	Projects Completed 5
Trident Electric LLC. P.O. Box 1609 Laramie, WY - 82073 Phone: 307-399-6315	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 05/10/2010	Projects Completed 3
Utah Yamas Controls Inc.* 13526 S. 110 W. Draper, UT - 84020 Phone: 801-990-1950 Website: www.utahyamas.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Business Type Contractor Distributor Engineering Firm Manufacturer - Rep	Join Date 01/21/2013	Projects Completed 1
Virile Electric Inc. 410 Lawson Ave. Worland, WY - 82401 Phone: 307-347-4787	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 01/12/2016	Projects Completed 5
Voss Electric Co. 6547 S Racine Circle, Suite 100 Centennial, CO - 80111 Phone: 303-243-5503 Website: vosslighting.com	Specialties Controls Lighting	Business Type Distributor	Join Date 09/09/2016	Projects Completed 1
Washakie Electric, Inc 714 S 11th Street Worland, WY - 82401 Phone: 307-347-4215	Specialties Controls HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 09/14/2016	Projects Completed 1
WESCO Distribution - Wyoming HC 70 500 Mainline Green River, WY - 82935 Phone: 307-875-4910 Website: wesco.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 02/01/2009	Projects Completed 15
West Plains Engineering, Inc. 145 S Durbin Suite 205, Casper, WY - 82601 Phone: 307-234-9484 Website: www.westplainsengineering.com	Specialties Building envelope HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Business Type Engineering Firm	Join Date 04/08/2013	Projects Completed 11
Western Land Management LLC 2815 East Linwood Lane Manila, UT - 84046 Phone: 949-285-9454	Specialties Food Service Lighting	Business Type Distributor	Join Date 01/29/2016	Projects Completed 1

Wheeler Electric 469 West 16th St. Idaho Falls, ID - 83402 Phone: 208-522-1906 Website: wheelerelectric.com	Specialties Building envelope Compressed Air Controls Farm and Dairy Food Service Lighting Motors and VFDs	Business Type Contractor	Join Date 01/01/2007	Projects Completed 5
Wind River Blasting LLC 3905 Spy Glass Circle Riverton, WY - 82501 Phone: 307-851-7440	Specialties Lighting	Business Type Other: consultant	Join Date 06/03/2014	Projects Completed 4
Wired Electric 3741 Aspen Pl Casper, WY - 82604 Phone: 307-262-9523	Specialties Lighting	Business Type Contractor	Join Date 01/01/2012	Projects Completed 17
Wyatt Electric 490 Foster Cir Casper, WY - 82601 Phone: 307-262-1251	Specialties Lighting	Business Type Contractor	Join Date 05/01/2010	Projects Completed 67
Wyoming Lighting Associates 130 S. Lincoln Casper, WY - 82601 Phone: 307-237-0693 Website: www.wyominglighting.com	Specialties Lighting	Business Type Manufacturer - Rep	Join Date 10/16/2012	Projects Completed 1

The following is a list of contractors, distributors and other businesses participating in Rocky Mountain Power's Energy Efficiency Alliance displayed in random order (unless sorted by the user) based on the search criteria selected. This listing is provided solely as a convenience to our customers. Rocky Mountain Power does not warrant or guarantee the work performed by these participating vendors. You are solely responsible for any contract with a participating vendor and the performance of any vendor you have chosen.

An asterisk (*) indicates Rocky Mountain Power Outstanding Contribution Award winning trade allies in 2013, 2014 and/or 2015.

Search Criteria:

Selected State(s): Wyoming
Specialties: Motors and VFDs
Business Type: --ANY--

Search Results: 59 - Date and Time: 03/30/2017 02:52:08 PM

Company Name	Specialties	Business Type	Join Date	Projects Completed
307 Electric 2159 SW Wyoming Blvd. Casper, WY - 82604 Phone: 307-337-1556 Website: www.307electric.com	Controls Lighting Motors and VFDs	Contractor	01/13/2016	Projects Completed
American Electric Company, Inc. 78 West 13775 South, Suite 9 Draper, UT - 84020 Phone: 801-254-0782 Website: www.americanelectric.cc	Appliances Building envelope Controls Lighting Motors and VFDs Other: Other Specialty	Contractor	04/06/2015	Projects Completed
American Mechanical Systems Service, LLC 7530 South State Street Midvale, UT - 84047 Phone: 801-428-0400 Website: www.ams-ut.com	Controls HVAC - unitary Motors and VFDs	Contractor	11/30/2012	Projects Completed
Architectural Nexus, Inc. 2505 East Parleys Way Salt Lake City, UT - 84109 Phone: 801-924-5000 Website: www.archnexus.com	Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Architect	08/18/2014	Projects Completed
Aspen Engineering and Environmental LLC 140 Aspen Circle Park City, UT - 84098 Phone: 435-565-1535 Website: www.a2e-llc.com	Building envelope Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Engineering Firm	03/18/2013	Projects Completed
Boyle Electric Inc 707 Garfield ST Lander, WY - 82520 Phone: 307-332-8139 Website: boyleelectric.com	Lighting Motors and VFDs	Contractor	02/01/2009	Projects Completed 3
Case, Lowe & Hart, Inc. 2484 Washington Blvd. Suite 510, Ogden, UT - 84401 Phone: 801-399-5821 Website: www.clhae.com	Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Architect Engineering Firm	05/17/2013	Projects Completed
Casper Electric Inc 3150 E Yellowstone Hwy Casper, WY - 82609 Phone: 307-237-3003	Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Contractor Engineering Firm	01/01/2009	Projects Completed 35

Consolidated Electrical Distributors - Vernal* 397 South 1000 East Vernal, UT - 84078 Phone: 435-789-9070	Specialties Building envelope Controls Irrigation Lighting Motors and VFDs	Business Type Distributor	Join Date 09/16/2015	Projects Completed 7
Consolidated Electrical Distributors Inc. - Casper* 3330 E Yellowstone Hwy Casper, WY - 82609 Phone: 307-232-8300 Website: www.cedcasper.shopced.com	Specialties Controls Irrigation Lighting Motors and VFDs	Business Type Distributor	Join Date 11/12/2015	Projects Completed 1
Crum Electric Supply - Cheyenne 1010 Dunn Avenue South Cheyenne, WY - 82001 Phone: 307-778-8442 Website: www.crum.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 05/01/2009	Projects Completed 2
D&S Electrical 363 West Chubbuck Road Pocatello, ID - 83202 Phone: 208-731-3701	Specialties Lighting Motors and VFDs	Business Type Distributor	Join Date 12/01/2008	Projects Completed 48
Denver Electrical Contractors 1855 W. Union Ave. Unit V Sheridan , CO - 80110 Phone: 303-432-8879 Website: www.denverelectrical.com	Specialties Lighting Motors and VFDs	Business Type Other: Electrical Design Build Engineering and Construction	Join Date 12/02/2013	Projects Completed 5
E2 Electrical Contractor, Inc. 1317 Edgar Street Rock Springs, WY - 82901 Phone: 307-705-7682	Specialties Motors and VFDs	Business Type Contractor	Join Date 01/30/2013	Projects Completed 2
Electric Service Company 615 SW Wyoming Blvd Mills, WY - 82644 Phone: 307-266-1000	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 03/17/2014	Projects Completed 2
Electrical Connections, Inc. 2214 Upland Suite A Rock Springs, WY - 82901 Phone: 307-382-0647	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 02/03/2016	Projects Completed 2
Electrical Support Services LLC 1037 E 1400 N. Shelly, ID - 83274 Phone: 208-251-6022	Specialties Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 03/12/2015	Projects Completed 2
Encentiv Energy, LLC 1501 Ardmore Blvd. Suite 102, Pittsburgh, PA - 15221 Phone: 412-723-1516 Website: www.encentivenergy.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Other: Energy Efficiency Analytics Other: Energy Efficiency Rebate Processing	Join Date 11/11/2015	Projects Completed 1
Engineered Systems Assoc., Inc. 1355 E. Center Street Pocatello, ID - 83201 Phone: 208-233-0501	Specialties Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Engineering Firm	Join Date 01/10/2014	Projects Completed 2
Engineering System Solutions DBA ES2 4943 N 29 E Suite A Idaho Falls, ID - 83401 Phone: 208-552-9874 Website: www.es2eng.com	Specialties Appliances Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 05/08/2014	Projects Completed 2

Fireside Plumbing, Heating & Electric P.O. Box 230 Evanston, WY - 82931 Phone: 307-789-6716 Website: www.firesidewyo.com	Specialties HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Contractor	Join Date 03/22/2013	Projects Completed
Get Western Electric 15 Flint Trail, p.o. box 1974 Pinedale, WY - 82941 Phone: 307-749-1249	Specialties Appliances Controls Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 03/23/2016	Projects Completed
Homespun Electrical, LLC PO Box 1042 Lander, WY - 82520 Phone: 307-851-2079	Specialties Appliances Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Business Type Contractor	Join Date 02/27/2015	Projects Completed
Honeywell International 2371 S. Presidents Way Suite A Salt Lake City, UT - 84120 Phone: 801-978-7136 Website: honeywell.com	Specialties Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Contractor Distributor Manufacturer - Rep	Join Date 05/01/2006	Projects Completed
Hussmann Corporation 1385 W 2200 St Salt Lake City, UT - 84119 Phone: 805-458-7615 Website: hussmann.com	Specialties Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Manufacturer - Rep	Join Date 01/14/2015	Projects Completed
Instrument Electric Service Inc 918 Pendell Blvd Mills, WY - 82644 Phone: 307-235-2009 Website: www.instrumentelectric.com	Specialties Controls Lighting Motors and VFDs Other: Other Specialty	Business Type Contractor Distributor Engineering Firm Other: UL panel Shop	Join Date 04/25/2013	Projects Completed
Intermountain Electric Service, Inc. - Evanston 110 Commerce Dr Evanston, WY - 82930 Phone: 307-789-6500 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed
Intermountain Electric Service, Inc. - Riverton 701 S Federal Blvd Riverton, WY - 82501 Phone: 307-856-7321 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed
Intermountain Electric Service, Inc. - Big Piney P.O. Box 40 Big Piney, WY - 83113 Phone: 307-276-3049 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 03/03/2009	Projects Completed
Intermountain Electric Service, Inc. - Rock Springs 507 Mitchelson Rock Springs, WY - 82901 Phone: 307-362-1417 Website: intermountainelectric.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Contractor	Join Date 02/01/2009	Projects Completed 2

Johnson Controls, Inc. 2255 Technology Parkway West Valley City, UT - 84119 Phone: 801-903-7532	Specialties Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Contractor Manufacturer - Rep	Join Date 06/01/2007	Projects Completed 0
KEE Engineering and Consulting LLC 695 W. 1980 So Price, UT - 84501 Phone: 435-613-1220 Website: www.keeengineering.com	Specialties Controls Motors and VFDs	Business Type Engineering Firm	Join Date 03/14/2016	Projects Completed 0
Lux Energy Group 1111 South 120 East Farmington, UT - 84025 Phone: 801-989-8375	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm Other: Energy Resource Managers	Join Date 10/13/2015	Projects Completed 0
McKinstry Essention, LLC 112 N. Rubey Dr. Suite 200, Golden, CO - 80403 Phone: 435-632-8433 Website: www.mckinstry.com	Specialties Building envelope Compressed Air Controls HVAC - evaporative HVAC - unitary Irrigation Motors and VFDs Other: Other Specialty	Business Type Engineering Firm	Join Date 02/12/2014	Projects Completed 0
MKK Consulting Engineers Inc. 4760 S. Highland Drive Suite 106 Salt Lake City, UT - 84115 Phone: 303-796-6000	Specialties Compressed Air Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Business Type Engineering Firm	Join Date 01/18/2016	Projects Completed 0
Mountain West Electrical Services, LLC P.O. Box 2102 208 Fayette Pole Creek Road, Pinedale, WY - 82941 Phone: 307-367-8400 Website: www.mwesllc.com	Specialties Compressed Air Controls Farm and Dairy Food Service HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs Office Equipment Other: Other Specialty	Business Type Contractor	Join Date 03/26/2013	Projects Completed 1
Musgrove Engineering, PA 234 Whisperwood Way Boise, ID - 83709 Phone: 208-384-0585 Website: musgrovepa.com	Specialties Compressed Air Controls Food Service HVAC - evaporative HVAC - unitary Motors and VFDs Office Equipment	Business Type Engineering Firm	Join Date 07/28/2015	Projects Completed 0
Optica Energy Management, LLC 1772 Ross Dr Ogden, UT - 84403 Phone: 888-442-4866 Website: www.opticaenergy.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor Other: Energy Management Company	Join Date 04/11/2013	Projects Completed 17
Prairie Dog Electric 106 State St Saratoga, WY - 82331 Phone: 307-326-8534	Specialties Building envelope Farm and Dairy Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 12/04/2015	Projects Completed 0
Premier Site Development, LLC 144 Sauk Trail Boulder, WY - 82923 Phone: 307-537-3359	Specialties Lighting Motors and VFDs	Business Type Contractor	Join Date 04/18/2016	Projects Completed 0

Company Name	Specialties	Business Type	Join Date	Projects Completed
Process Systems International P.O. Box 6187 103N. 5th East, Riverton, WY - 82501 Phone: 307-856-4600 Website: www.prosystemsintl.com	Controls Lighting Motors and VFDs Office Equipment	Contractor	11/12/2014	13
PVE, Inc* 1040 North 2200 West, Suite 100 Salt Lake City, UT - 84107 Phone: 801-359-3158	Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Engineering Firm	07/29/2013	Completed
RealWinWin, Inc. 1926 Arch Street, 4F Philadelphia, PA - 19103 Phone: 215-732-4480 x 349 Website: www.realwinwin.com	Appliances Building envelope Controls Food Service HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment	Other: Energy Efficiency Incentive Administration and Consultation	10/14/2013	43
Rexel Holdings USA 2004 East Allison Rd. Cheyenne, WY - 82007 Phone: 307-638-8470 Website: www.rexelholdingsusa.com	Controls Lighting Motors and VFDs	Distributor	02/16/2016	Completed
Riverton Sheet Metal Works Inc 217 N 3rd E Riverton, WY - 82501 Phone: 307-856-3431	HVAC - unitary Motors and VFDs	Contractor	01/01/2009	Completed
Royal Engineering, Inc. 2335 S. State Street Suite 100, Provo, UT - 84606 Phone: 801-375-2228 Website: www.royaleng.com	Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs	Engineering Firm	12/31/2014	Completed
Smart Building Solutions 2876 South 460 West Salt Lake City, UT - 84115 Phone: 801-733-6000 Website: www.intellivex.com	Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Office Equipment Other: Other Specialty	Distributor Manufacturer - Rep	03/04/2015	Completed
Trane* 2817 S. 1030 W. Salt Lake City, UT - 84119 Phone: 801-486-0500 Website: www.trane.com	Controls HVAC - unitary Motors and VFDs	Distributor Manufacturer - Rep	03/01/2005	Completed
Trident Electric LLC. P.O. Box 1609 Laramie, WY - 82073 Phone: 307-399-6315	Controls Lighting Motors and VFDs	Contractor	05/10/2010	3
Utah Yamas Controls Inc.* 13526 S. 110 W. Draper, UT - 84020 Phone: 801-990-1950 Website: www.utahyamas.com	Building envelope Controls HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Contractor Distributor Engineering Firm Manufacturer - Rep	01/21/2013	1

Valley Implement 213 West 8th North Preston, ID - 83263 Phone: 208-852-0430 Website: valley-implement.com	Specialties Controls Irrigation Motors and VFDs	Business Type Contractor	Join Date 12/05/2012	Projects Completed null
Valley Implement 2570 N Main Logan, UT - 84341 Phone: 435-787-1586 Website: valley-implement.com	Specialties Controls Farm and Dairy Irrigation Motors and VFDs	Business Type Contractor	Join Date 12/05/2012	Projects Completed null
Van Boerum & Frank Associates 330 South 300 East Salt Lake City, UT - 84111 Phone: 801-530-3148 Website: www.vbfa.com	Specialties Building envelope Controls HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Architect Engineering Firm Other	Join Date 01/01/2012	Projects Completed Completed
Virile Electric Inc. 410 Lawson Ave. Worland, WY - 82401 Phone: 307-347-4787	Specialties Controls Lighting Motors and VFDs	Business Type Contractor	Join Date 01/12/2016	Projects Completed 5
Washakie Electric, Inc 714 S 11th Street Worland, WY - 82401 Phone: 307-347-4215	Specialties Controls HVAC - evaporative HVAC - unitary Irrigation Lighting Motors and VFDs	Business Type Contractor	Join Date 09/14/2016	Projects Completed Completed
WESCO Distribution - Wyoming HC 70 500 Mainline Green River, WY - 82935 Phone: 307-875-4910 Website: wesco.com	Specialties HVAC - unitary Lighting Motors and VFDs	Business Type Distributor	Join Date 02/01/2009	Projects Completed 15
West Plains Engineering, Inc. 145 S Durbin Suite 205, Casper, WY - 82601 Phone: 307-234-9484 Website: www.westplainsengineering.com	Specialties Building envelope HVAC - evaporative HVAC - unitary Lighting Motors and VFDs Other: Other Specialty	Business Type Engineering Firm	Join Date 04/08/2013	Projects Completed 11
Wheeler Electric 469 West 16th St. Idaho Falls, ID - 83402 Phone: 208-522-1906 Website: wheelerelectric.com	Specialties Building envelope Compressed Air Controls Farm and Dairy Food Service Lighting Motors and VFDs	Business Type Contractor	Join Date 01/01/2007	Projects Completed 5
WHW Engineering Inc. 8619 Sandy Parkway #101 Sandy, UT - 84070 Phone: 801-466-4021	Specialties HVAC - evaporative HVAC - unitary Motors and VFDs	Business Type Engineering Firm	Join Date 02/23/2015	Projects Completed Completed



Appendix 4

Wyoming Measure Installation Verifications

Wyoming Measure Installation Verifications

Low Income Weatherization

All projects

- All measures are qualified through US Department of Energy approved audit tool or priority list.
- 100 percent inspection by agency inspector of all homes treated, reconciling work completed and quality prior to invoicing Company.
- State inspectors randomly inspect 5-10 percent of completed homes.

Home Energy Savings

Site inspections by Program Administrator staff for the following retrofit measures. Inspections are performed on ≥ 5 percent of single family homes, ≥ 5 percent of manufactured homes, and 100 percent of multifamily projects.

- Central air conditioner / heat pump tune-ups
- Central air conditioner best practice installation
- Central air conditioner proper sizing
- Ductless heat pumps
- Duct sealing and insulation
- Heat pumps
- Heat pump best practice installation and sizing
- Heat pump water heaters
- Insulation
- Windows

Site inspections are not conducted for the following measures. However, all post-purchase incented measures undergo a quality assurance review prior to the issuance of the customer/dealer incentive and recording of savings (e.g. proof of purchase receipt review) and eligible equipment review. Additionally, customer account and customer address are checked to ensure the Company does not double pay for the same measure or double count measure savings.

- Air conditioners
- Ceiling fans
- Clothes washers
- Dishwasher
- Electric water heaters
- Evaporative coolers
- Freezers
- Home electronics (flat panel televisions / monitors / desktops)
- Light fixtures
- Refrigerators

Other measures

- CFL bulbs are delivered via an upstream, manufacturer buy-down model. Promotion agreement contracts are signed with manufacturers and retailers to set incentive levels, final product prices, and limits to the total number of units that can be purchased per customer. Program Administrator verifies measures for product eligibility and correct pricing. Pricing is also verified by Program Administrator field visits to retail locations.

Customer eligibility for *wattsmart* Starter Kits is verified using the customer's account number and last name, and cross-verifying with the current PacifiCorp customer database.

wattsmart Business

For projects delivered by third part program administrator

Lighting projects

- Retrofits - 100 percent pre- and post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount. Project cost documentation reviewed for all projects.
- New construction - 100 percent post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount.
- A percent of post-installation site inspections by program administrator of projects with incentives under a specified dollar amount.

Non-lighting projects (typical upgrades/listed measures, custom measures)

- 100 percent of applications with an incentive that exceeds a specified dollar amount will be inspected (via site inspection) by program administrator.
- A minimum of a specified percent of remaining non-lighting applications will be inspected, either in person or via telephone interview, by program administrator.

For Company in-house project manager delivered projects

Lighting and non-lighting

- 100 percent pre/post-installation site inspections by third party consulting engineering firms, invoice reconciled to inspection results.
- No pre-inspection for new construction

All Programs

As part of the third-party program evaluations (two-year cycle) process, the Company is implementing semi-annual customer surveys to collect evaluation-relevant data more frequently to cure for memory loss and other detractors such as customers moving and data not be readily available at evaluation time. This will serve as a further check verifying customer participation and measures installed.

Additional record reviews and site inspections (including metering/data logging) is conducted as part of the process and impact evaluations, a final verification of measure installations.



Appendix 5

Wyoming Program Evaluations

Wyoming 2016 Evaluations

Program Evaluation Recommendations and Company Responses

Evaluation reports provide detailed information on the process and impact evaluations performed on each program, summarizing the methodology used to calculate the evaluated savings as well as providing recommendations for the Company to consider for improving the process or impact of the program, as well as customer satisfaction.

Outlined below is a list of the programs, the years that were evaluated during 2016 and the third party evaluator who completed the evaluation. Program evaluations are available for review at www.pacificorp.com/es/dsm/wyoming.html

PROGRAM	YEARS EVALUATED	EVALUATOR
Home Energy Savings	2011-2013	Cadmus

Company responses to the program recommendations contained in the evaluations are provided in the tables below.

Table 1
Home Energy Savings Program Evaluation Recommendations

Evaluation Recommendations	Rocky Mountain Power Action Plan
Assign measure categories by end use (instead of delivery channel) to ensure the most appropriate cost-effectiveness results instead of delivery channel.	The Company implemented the Technical Resource Library in 2015, which includes measure categorization. The program administrator now follows the same categorization.
When calculating clothes washer energy savings, use the federal standard baseline. Cadmus used the federal baseline, but the Company used the RTF's current practice baseline, leading to a high 257% realization rate. The current practice baseline was more efficient than the federal standard.	The Company has moved from using the RTF methodology to using the federal standard baseline.
Track all upstream lighting data in a consistent manner throughout each two-year program evaluation period. Cadmus had difficulty mapping the program administrator's lighting tracking database to the price scheduling database (inconsistent use of SKU's and model numbers).	The program administrator will standardize upstream lighting database tracking to ensure that all data provided is consistent and accurate.
Consider accounting for commercial installation of upstream bulbs in the reported savings. Currently, RMP does not account for cross-sector sales from the upstream lighting incentives.	The program evaluation covered a period before the Company began offering instant incentives for LED lighting to non-residential customers. Given the changing nature of the lighting market and the new offering for non-residential customers, the Company does not plan to adjust savings for cross-sector sales at this time, but will continue to monitor this trend in future evaluations.

Evaluation Recommendations	Rocky Mountain Power Action Plan
<p>Consider using nonparticipant spillover analysis in the NTG estimation for all programs. Nonparticipant spillover results in energy savings caused by, but not rebated through, a utility's demand-side management activities. Through responses to the general population survey, Cadmus estimated nonparticipant spillover as 2% of HES program savings. These savings were not included because this estimation is relatively new in the industry.</p>	<p>The Company will incorporate nonparticipant spillover in the NTG estimation in the next round of evaluations.</p>
<p>Continue to pursue a multi-touch marketing strategy, using a mix of bill inserts and retailer/contractor training. Given the large percentage of customers who learned of wattsmart offerings through bill inserts, examine the proportion of customers selecting to receive online bills and ensure these online channels proportionately advertise the programs with the messages that motivated customers to participate: long-lasting products, saving energy, replacing equipment and reducing costs.</p>	<p>The company will continue to pursue a multi-touch marketing strategy.</p>
<p>Continue regular trainings with trade allies (e.g., distributors, retailers, sales associates, contractors), updating them on tariff changes and, where appropriate, supporting them with sales and marketing training. Analyze success of efforts to register non-registered contractors who worked with rebate participants within 90 days to determine whether the additional outreach mitigated the number of rejected applications due to non-qualified contractors.</p>	<p>Program will continue sending quarterly trade ally newsletters, providing roundtable events bi-annually, and identifying areas for additional training where feasible and cost-effective.</p>