





2022 WYOMING Energy Efficiency Annual Report

Issued 7/3/2023

Rocky Mountain Power 1407 West North Temple Salt Lake City, UT 84116

pacificorp.com/environment/demand-side-management

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EXECUTIVE SUMMARY

Rocky Mountain Power is a multi-jurisdictional electric utility providing retail service to customers in Utah, Idaho, and Wyoming. Rocky Mountain Power, a division of PacifiCorp, serves approximately 143,743 customers in Wyoming. Rocky Mountain Power acquires energy efficiency and peak reduction resources as cost-effective alternatives to the acquisition of supply-side resources. These resources assist in efficiently addressing load growth and contribute to the ability to meet system peak requirements.

PacifiCorp develops an integrated resource plan (IRP)¹ as a means of balancing cost, risk, uncertainty, supply reliability/deliverability and long-run public policy goals. The IRP presents a framework of future actions to ensure that Rocky Mountain Power continues to provide reliable, reasonably priced service to customer. Energy Efficiency and peak management opportunities are incorporated into the IRP based on their availability, characteristics, and costs.²

Rocky Mountain Power employs external implementers to administer its programs.³ Evaluations for each program are performed by independent external evaluators to validate energy and demand savings derived from Rocky Mountain Power's energy efficiency programs.⁴

Rocky Mountain Power utilizes earned media, customer communications, education, and outreach, advertising as well as program specific marketing to communicate the value of energy efficiency, provide information regarding low-cost, no-cost energy efficiency measures and to educate customer on the availability of programs, services, and incentives.⁵

This report provides details on program results, activities, and expenditures of the Customer Efficiency Tariff Rider ("Schedule 191") as of the reporting period from January 1, 2022, through December 31, 2022. Rocky Mountain Power on behalf of its customers, invested \$8.1 million in energy efficiency resource acquisitions during the reporting period. The investment yielded approximately 49 megawatt hours ("MWh") at generator in first-year energy savings.

Net benefits based on the projected value of the energy savings over the life of the individual measures is estimated at \$14.8 million.⁶

¹ Information on PacifiCorp's IRP can be found at https://www.pacificorp.com/energy/integrated-resource-plan.html.

² Information on Rocky Mountain's planning document can be found at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/environment/dsm/Rocky Mountain
Power Planning Process.pdf

³ Information on program administration can be found at https://www.pacificorp.com/environment/demand-side-management.html under the "Program Administration" section.

⁴ Information on program evaluations can be found at https://www.pacificorp.com/environment/demand-side-management.html under the "Reports and program evaluations by state" section.

⁵ Information on communications and outreach can be found at https://www.pacificorp.com/environment/demand-side-management.html under the "Communications and Outreach" section.

⁶ See cost effectiveness Appendix A.

The energy efficiency portfolio was cost effective based on the Utility Cost Test (UCT), which is the primary cost benefit test observed in Wyoming. Cost effectiveness results are provided in Table 3 and Appendix A.

In 2022, Rocky Mountain Power's DSM portfolio included the following energy efficiency programs:

- Wattsmart Homes
- Home Energy Reports
- Low Income Weatherization
- Wattsmart Business

REGULATORY ACTIVITIES

During the 2022 reporting period, the Company filed compliance and/or informational reports, updates, notices, and requests with the Commission in support of Company DSM programs. The following is a list of those activities:

- On February 15, 2022, 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 program from October 1, 2021 December 31, 2021.
- On February 15, 2022, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status report with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- On February 18, 2022, the Company posted a notice on its website to make modifications to the Wattsmart Homes program. Key modifications included incentive adjustments for heat pumps, HVAC, and engine block heater controls. These modifications went into effect March 19, 2022.
- On May 17, 2022, 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 program from January 1, 2022 March 31, 2022.
- On May 17, 2022, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status report with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- On May 31, 2022, the Company posted a notice on its website to make modifications to the Wattsmart Homes program. Key modifications included the discontinuation of LED offerings due to market adoption. These modifications went into effect June 30, 2022.
- On July 18, 2022, in Docket No. 20000-264-EA-06, the Company filed its Annual DSM Report for the 2021 calendar year.

- On July 28, 2022, in Docket No. 20000-264-EA-06, the Company filed a notice regarding the publication of program evaluations for the Wattsmart Business, Home Energy Reports, and Wattsmart Homes programs.
- On August 9, 2022, 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 program from April 1, 2022 June 30, 2022.
- On August 9, 2022, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status report with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- On November 15, 2022, 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 program from July 1, 2022 September 30, 2022.
- On November 15, 2022, in Docket No. 20000-383-EA-10, the Company filed its quarterly program status report with monthly participation levels, energy savings, DSM program cost data and Schedule 191 balances by category.
- On December 6, 2022, in Docket No. 20000-264-EA-06, the Company filed its 2023 promotional plan to educate the public concerning energy efficiency and to promote its DSM programs.

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) 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) Schedules 33, 46 and 48T

In Docket No. 20000-526-EA-17 (Record No. 14847), the Commission approved the Category 3 balancing account to be capitalized and amortized. Schedule 191 balances by category are available in the Company's ongoing quarterly reports submitted in Docket No. 20000-383-EA-10 (Record No. 12686).

PORTFOLIO OF PROGRAMS

ENERGY EFFICIENCY PROGRAMS

WATTSMART HOMES

Program Description

The Wattsmart Homes program is designed to provide access to and incentives for more efficient products and services installed or received by residential customers in the following housing types:

- Newly Constructed Homes
- Single Family Existing Homes
- Multi-family Housing Units
- Manufactured Homes

The program applies to residential customers under Electrical Service Schedules 2 or 18. Landlords who own rental property where the tenant is billed under Electric Service Schedules 2 or 18 also qualify.

The Wattsmart Homes program passed the UCT cost test with a benefit cost ratio of 1.07 for 2022.

Program Performance and Major Achievements in 2022

- The Wattsmart Homes program achieved gross savings of 3,456,441 kWh at site.
- Disbursed \$429,909 million in incentives.
- The Wattsmart Homes program retired incentives for all general and specialty LED (Light Emitting Diodes) bulbs and fixtures.
- The Wattsmart Homes program made changes to incentives offered for central air conditioners, evaporative coolers, heat pumps, smart thermostats, and engine block heaters.
- The Wattsmart Homes program went through the Request for Proposal (RFP) process and contracted with Evergreen Consulting for existing homes and Resource Innovations for new homes. Contracts were executed, and transition work started in the 3rd quarter in preparation for implementation to begin January 1, 2023.

Additional information on the program administration can be found on the Company's website under the Program administration section:

https://www.pacificorp.com/environment/demand-side-management.html

Direct Link to Wattsmart Homes program administration:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/environment/dsm/wyoming g/Wyoming Program Administration Wattsmart Homes 22.pdf

HOME ENERGY REPORTS PROGRAM

Program Description

The *Home Energy Reports* program is a behavioral program designed to decrease participant energy usage by providing comparative 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.

The Home Energy Reports program passed the UCT with a cost benefit ratio of 8.53 for 2022.

Program Performance and Major Achievements in 2022

- Total savings for 2022 in MWh was 8,229 which equates to 8,228,985 in kWh savings.
- In 2022 reports were initially provided to approximately 44,000, which was expanded to 68,000 customers in December 2022.
- Report highlights
 - Individual recommendations to save energy
 - Insights on how customers are using energy by appliance type
 - Home characteristics included in report with easy access to update home profile
 - Monthly usage history included in reports
- The online portal was improved to provide greater insights for all residential customers.
- In 2022, only 0.4% of customers (307 customers) have requested to be removed from the program.

Additional information on the program administration can be found on the Company's website under the Program administration section:

https://www.pacificorp.com/environment/demand-side-management.html

Direct Link to Home Energy Reports program administration:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/environment/dsm/wyoming g/Wyoming Program Administration Home Energy Reports 22.pdf

LOW INCOME WEATHERIZATION

Program Description

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.

The Company contracts 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.

The Low-Income Weatherization program passed the UCT with a cost benefit ratio of 5.39 for 2022.

Program Performance and Major Achievements in 2022

- In 2022, the program achieved gross savings of 29,970 kWh at site.
- Number of homes served 10

Additional information on the program administration can be found on the Company's website under the Program administration section:

https://www.pacificorp.com/environment/demand-side-management.html

Direct Link to Low Income Weatherization program administration:

httss://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/environment/dsm/wyoming/Wyoming Program Administration Low Income 22.pdf

WATTSMART BUSINESS PROGRAM

WATTSMART BUSINESS

Program Description

The commercial, industrial, and agricultural energy efficiency program portfolio is offered through a single Non-Residential Energy Efficiency program called Wattsmart Business.

Wattsmart Business is designed to influence new and existing non-residential customers to increase the efficiency of electric energy usage both through the installation of efficient equipment as well as adoption of improved energy management protocols. Qualifying measures include those which produce verifiable electric energy efficiency improvements compared to an established baseline.

Wattsmart Business offerings include:

- Typical Upgrades
- Midstream/LED Instant incentives
- Custom Analysis
- Energy Management

The Wattsmart Business program passed the UCT with a cost benefit ratio of 2.09.

Program Performance and Major Achievements in 2022

- In 2022, the program achieved gross savings of 33,648,898 kWh at site.
- Distributed incentives of \$3,124,052.
- The strength of 2022 lighting savings was directly tied to government projects. Where much of the state spending was paused during and after the pandemic, in 2022 things started to get back to normal. Many cities, schools, counties, and other government funded facilities started their regular lighting upgrade activities. As an energy savings strategy, Small Business Enhanced (SBE) was launched in Wyoming in 2021. In 2022, there was a focus to leverage the new offering to re-engage with Vendors that were not participating with the program. The strategy proved to be successful, increasing vendor participation rates steadily and additional savings.
- Program 2022 non-lighting savings was supported through Advanced Rooftop Control (ARC), Variable Frequency Drives (VFDs) and Electronically Commutated Motor (ECM) projects. Supply chain problems were an issue in 2022 and are forecasted to continue to be a project delivery constraint through at least the first half of 2023.
- There are 6 Wyoming Wattsmart Business Premium Vendors.

- Participating Wattsmart Business vendors continued receiving feedback on their performance with ongoing efforts to encourage vendors to reach "Premium" status. The enhanced status entitles qualifying vendors to improved search engine visibility on Wattsmart Business web pages and enhanced co-branding opportunities with the Rocky Mountain Power logo. There are six Premium vendors in Wyoming.
- Global supply chain challenges began affecting large industrial customers in 2021.
 Equipment planned for energy efficiency projects and facility upgrades continues to be delayed, resulting in delays in kWh savings entering the program.

Additional information on the program administration can be found on the Company's website under the Program administration section:

https://www.pacificorp.com/environment/demand-side-management.html

Direct Link to Wattsmart Business program administration:

https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/environment/dsm/wyoming/Wyoming Program Administration NonResidential 22.pdf

EXPENDITURES

TOTAL ENERGY EFFICIENCY PORTFOLIO SAVINGS AND EXPENDITURES

Table 1
Program Results for January 1, 2022- December 31, 2022⁷

Category and Program	kWh/Yr Savings (@ site)	kWh/Yr Savings (@ generator)	Program Expenditures	
Category 1 - Residential				
Low Income Weatherization	29,970	33,048	\$	8,934
Home Energy Reporting	8,228,985	9,074,102	\$	47,583
Wattsmart Homes	3,456,441	3,811,418	\$	1,463,638
Total Category 1	11,715,396	12,918,567	\$	1,520,154
Category 2 - Commercial, Industrial & Irrigation				
Wattsmart Business	13,078,497	14,262,322	\$	2,836,163
Total Category 2	13,078,497	14,262,322	\$	2,836,163
Category 3 - Commercial & Industrial				
Wattsmart Business	20,570,401	21,821,610	\$	3,292,738
Total Category 3	20,570,401	21,821,610	\$	3,292,738
Total Energy Efficiency (Categories 1, 2 and 3)	45,364,294	49,002,499	\$	7,649,056
Portfolio EM&V, DSM Central, Measure	Library and Poten	tial Study - Cat 1	\$	74,482
Portfolio EM&V, DSM Central, Measure	\$	80,530		
Portfolio EM&V, DSM Central, Measure Library and Potential Study - Cat 3				132,068
Outreach & Communication - Cat 1				126,956
Outreach & Communication - Cat 2				40,112
Outreach & Communication - Cat 3				22,355
Total Wyoming Expenditures				8,125,558

⁷ The energy efficiency reported savings are gross, ex-ante. The values at generation include line losses between the customer site and the generation source.

2022 GROSS SAVINGS

Table 2
Wattsmart Homes Savings by Measure Category

Measure Category	Total kWh (at Site)	Total Incentive		Total Measure Quantity
Appliances	1,519	\$	750	15
Building Shell	9,761	\$	2,636	8,378 sq ft
Energy Kits	44,786	\$	2,094	362
HVAC	1,118,507	\$	295,145	805
Lighting	822,422	\$	32,533	60,295
Water Heating	6,113	\$	2,400	4
Transportation	1,453,163	\$	94,300	943
Electronics	171	\$	50	5
Grand Total	3,456,441	\$	429,909	

Table 3
Low Income Weatherization Homes Served and Measures Installed

Measure Type	Installed
Weather Strip	2
Insulation	7
LED Bulbs	8
Refrigerators	5
Window Replacement	2
Low Flow Shower Head	1
Ground Cover	1
Total Number of Homes Served	10
Total kWh Savings @ Site	29,970

Table 4
Wattsmart Business Savings by Sector

Sector	Total kWh (at Site)	Total Incentive			
Commercial	11,076,541	\$ 1,656,246			
Industrial	22,424,424	\$ 1,441,454			
Irrigation	147,934	\$ 26,352			
Grand Total	33,648,898	\$ 3,124,052			

Table 5
Wattsmart Business Savings by Measure Category

Measure Category	Total kWh (at Site)	Total Incentive		Total Projects
Additional Measures	2,907	\$	291	1
Building Shell	8,609	\$	7,807	4
Energy Management	2,279,365	\$	45,587	7
HVAC	2,349,275	\$	191,243	65
Lighting	6,584,072	\$	666,260	3,021
Motors	7,413,291	\$	696,803	44
Oil & Gas	11,293,286	\$	457,133	50
Refrigeration	406,890	\$	13,500	18
Compressed Air	254,291	\$	23,007	1
Direct Install	2,908,978	\$	903,225	266
Energy Proj Mgr Co-Fund		\$	92,845	1
Irrigation	147,934	\$	26,352	17
Grand Total	33,648,898	\$	3,124,052	3,495

COST FFFFCTIVENESS

TOTAL COST EFFECTIVENESS RESULTS BY PORTFOLIO AND PROGRAM

Program cost effectiveness is performed using a Company specific modeling tool, created by a third-party consultant. The tool is designed to incorporate PacifiCorp data and values such as avoided costs, and generally follows the methodology specified in California's Standard Practice Manual. The analysis assesses the costs and benefits of DSM resource programs from different stakeholder perspectives, including participants and non-participants, based on four tests described in the Standard Practice Manual (TRC, UCT, PCT and RIM) as well as an additional fifth test, PTRC.

Each of the cost effectiveness tests for Rocky Mountain Power's programs is outlined below. The primary cost/benefit test observed in Wyoming is the UCT.

- PacifiCorp Total Resource Test (PTRC) is the total resource cost test with an additional 10% added to the net benefit side of the benefit/cost formula to account for nonquantified environmental and non-energy benefits of conservation resources over supply side alternatives.
- Total Resource Cost (TRC) Test 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.
- Utility Cost (UCT) Test also called the program administrator cost test, provides a benefit
 to cost perspective from the utility only. The test compares the total utility cost incurred

- to the benefit/value of the energy and capacity saved and contains no customer costs or benefits in calculation of the ratio.
- Participant Cost Test (PCT) compares the portion of the resource paid directly by participants to the savings realized by the participants.
- Ratepayer Impact Cost Test (RIM) examines the impact of energy efficiency expenditures on non-participating ratepayers overall. Unlike supply-side investments, energy efficiency programs reduce energy sales. Reduced sales typically lower revenue requirements while putting near-term upward pressure on the rates remaining fixed costs are spread over fewer kilowatt-hours.

Table 6
2022 Cost Effectiveness Results by Program⁸

Program	Benefit/Cost Test				
	PTRC	TRC	UCT	PCT	RIM
Energy Efficiency Portfolio	1.55	1.41	1.83	3.67	0.46
Non-Residential Energy Efficiency Portfolio	1.65	1.50	2.09	3.34	0.49
Residential Energy Efficiency Portfolio	1.47	1.34	1.33	7.73	0.37
Low Income Weatherization	5.92	5.39	5.39	8.64	0.81
Home Energy Reporting	9.38	8.53	8.53	n/a	0.47
Wattsmart Homes	1.19	1.08	1.07	6.25	0.35
Wattsmart Business	1.65	1.50	2.09	3.34	0.49

Portfolio-level cost effectiveness includes portfolio costs, such as the Potential Assessment and DSM system database. Sector-level cost effectiveness includes sector-specific evaluation, measurement, and verification expenditures.

⁸ Additional cost effectiveness detail is provided in Appendix A.