ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

1407 West North Temple, Suite 330
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July 16, 2020

VIA ELECTRONIC FILING

Public Service Commission of Utah
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

Re: **Reply Comments**
In the Matter of Rocky Mountain Power's Demand-Side Management 2019 Annual Energy Efficiency and Peak Load Reduction Report
Docket No. 20-035-27

On June 2, 2020, the Public Service Commission of Utah ("Commission") issued a Notice of Filing and Comment period in the above referenced matter, allowing parties to file comments by July 1, 2020, and reply comments by July 16, 2020. The Division of Public Utilities ("DPU") filed comments June 22, 2020, the Office of Consumer Services ("OCS") filed comments June 30, 2020, and Utah Clean Energy ("UCE") and Southwest Energy Efficiency Project ("SWEEP") filed joint comments July 1, 2020. The DPU's and OCS' comments both recommended acknowledgement of the 2019 Annual Energy Efficiency and Peak Load Reduction Report ("2019 Report") as complying with Commission requirements. OCS' and UCE/SWEEP's comments included additional recommendations, which Rocky Mountain Power (the "Company") addresses in these reply comments.

OCS Comments

The OCS mentioned several items in their comments, including the following:

1. Noted the Company's commitment to complete a new line loss study from Docket No. 19-035-22;[1]
2. Recommended future reports add additional reference clarity in Appendix 1 concerning expenditures for Class 1 programs; and
3. Recommended that Appendix 1 in future reports includes commitments made in Docket No. 19-035-22, which include the following:
    a. Explain the difference between the total Class 2 Megawatts ("MW") reported in the 'Forecast to Actual Savings Comparison' table contribution from energy efficiency and the estimated coincident peak MW contribution reported in the 'Estimated Peak Contribution' table;
    b. Explain the relationship between decrement values and avoided costs used in cost-effectiveness, if applicable;

[1] The DPU also noted this commitment at the bottom of page 4 in their comments.

c. Provide an explanation for any reported program savings that are significantly below the forecast savings targets from the applicable November 1st Forecast Report; and
d. Explain the Home Energy Report incremental savings row within the 'Forecast to Actual Savings Comparison' table.

Concerning item 1, a new line loss study was completed in April 2020 as part of the general rate case Docket No. 20-035-04, and will be used beginning with the 2020 Report. The Company is agreeable to items 2 and 3 of OCS' recommendations.

In addition to the items mentioned above, an error was discovered with the Low Income Weatherization ("LIW") Program data in the 2019 Report as a result of discovery requests. Specifically, Table 23 included incorrect measure data. Updating the measure data in Table 23 resulted in marginally different savings results for the LIW Program, which in turn caused several other sections to be revised to account for marginal changes in savings and net benefits. Accordingly, attached hereto as Exhibit A is a revised 2019 Report with corrected data. Below is a summary of the specific areas of the 2019 Report that have been corrected:

- Executive Summary – first year energy savings and lifetime savings increased
- Tables 1, 11, and 14 – increase to net benefits
- Table 2, 3, 12, and 13 – increase to achieved savings
- LIW Program section
  - Increased savings in opening paragraph
  - Table 22 – increased net benefits and improved cost-effectiveness
  - Table 23 – replaced entirely with corrected table

UCE/SWEEP Comments

UCE/SWEEP's comments contained some misleading/inaccurate statements, which the Company would like to address, namely the following:

- On Page 2 of UCE/SWEEP's comments, they indicated that the Company's load management savings declined 22%, achieving 202 MW in 2019 compared to 258 MW in 2018. This is an invalid comparison. The 202 MW reference is the maximum *realize*d MW for Cool Keeper, whereas the 258 MW reference is the combined maximum *potential* MW for both Cool Keeper and Irrigation Load Control programs.[2] In 2018, the Cool Keeper program achieved a maximum realized load of 201 MW, and in 2019, the Cool Keeper program achieved a maximum realized load of 202 MW, a slight increase over 2018's realized load, as opposed to a 22% decline. The Company acknowledges that UCE/SWEEP's misstatement may have come as a result of Table 2 in the 2018 Report showing the maximum potential for Class 1 programs, and Table 2 in the 2019 Report showing the maximum realized for Class 1 programs. The Company will maintain consistency in future reports to help prevent any confusion that may arise for stakeholders comparing annual reports year over year.

[2] See Tables 7 and 10 of the 2018 and 2019 Annual Reports.

- Also on Page 2 of UCE/SWEEP's comments, they indicated that the Company spent $53 million in 2019 versus $45 million in 2018 on its DSM programs, including portfolio level costs. However, as reported in the Executive Summary and Table 3 of the 2018 Report, the Company spent $49 million on its 2018 DSM programs. It is unclear where UCE/SWEEP's $45 million reference came from.

- On Page 3 of UCE/SWEEP's comments, they indicated that the Wattsmart Homes residential program experienced a dip in achieved savings in 2019 (64,297 MWh) compared to 2018 (65,116 MWh). While this is an accurate statement, the Company believes that comparing savings from this perspective is misleading. The Wattsmart Homes forecast target for 2019 was 61,365 MWh, as filed in the November 1st Forecast Report in Docket No. 19-035-28 and shown in Table 2 of the 2019 Report. Accordingly, the Company achieved 5 percent more savings in 2019 than was forecast for the Wattsmart Homes program.

As a matter of practicality, the Company contests that comparing one year's annual report results to the previous year's results is incongruous. Each year has its own specific program targets and budget identified in the annual November 1st Forecast Report, based on the Integrated Resource Plan ("IRP") selections, and has little to do with the previous year. The focus of these annual reports should be more about whether the Company achieved its forecast targets cost-effectively within budget as a metric for success, and less about comparing it to the previous year's results, which have little to do with one another.

UCE/SWEEP's conclusion recommended the Commission require the Company to report the following in future reports:

1. Specify what reserve and ancillary service benefits the Irrigation Load Control and Cool Keeper programs provide;
2. Explain changes in cost-effectiveness for each test when compared to the previous year's annual report; and
3. Provide an analysis of how program changes discussed in the annual report have affected the cost-effectiveness of each program.

Concerning item 1, the Company will provide additional information in subsequent reports and/or in DSM Steering Committee meetings regarding the ancillary benefits of its Class 1 programs.

Concerning item 2, cost-effectiveness results differ from year to year based on a number of variables, such as avoided costs, program offerings, IRP selections and forecast targets, technology advancements, customer participation, program costs, etc. The Company has periodically discussed the bigger picture of cost-effectiveness changes over time (i.e. the past ten years) with the DSM Steering Committee, which has been helpful to understand what has transpired over time and what to expect going forward. While a bigger picture comparison has been helpful, the Company believes that attempting to identify and explain all the various reasons for differences of a given year's cost-effectiveness results to the previous year's results is incongruous and not a valuable metric. The Company will continue to provide an explanation for cost-effectiveness tests that fail, but does not intend to provide an explanation for cost-effectiveness tests that pass, regardless of cost-effectiveness results from the previous year.

Concerning item 3, program changes discussed in the annual report are a restatement of what has already been discussed and/or approved during the reported year. The Company is transparent with its program changes, whether they require approval or not from the Commission, and are customarily discussed with the DSM Steering Committee. For program changes that require Commission approval, not only are they discussed in DSM Steering Committee meetings, but also provided in Advice Letters that explain and detail program changes, costs impacts, cost-effectiveness analyses, etc. The Company believes that UCE/SWEEP's item 3 request is already covered throughout the year amidst DSM Steering Committee meetings and Advice Letters, and does not need to be provided again within the context of annual reports.

The Company appreciates the continued engagement of the DSM Steering Committee and will continue to work with Steering Committee members on DSM activities and areas of specific interest.

Sincerely,

Michael S. Snow
Manager, Regulatory Affairs

Exhibit A

Utah Energy Efficiency and Peak Reduction Annual Report

January 1, 2019 – December 31, 2019

Issued July16, 2020

ROCKY MOUNTAIN POWER

POWERING YOUR GREATNESS

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List of Abbreviations and Acronyms

DSM	Demand-side Management
HCD	Utah Department of Workforce Services, Housing and Community Development Division
HVAC	Heating, Ventilation and Air Conditioning
IRP	Integrated Resource Plan
kWh	Kilowatt hour
LED	Lighting-emitting Diode
MW	Megawatt
MWh	Megawatt hour
NTG	Net-to-Gross
PCT	Participant Cost Test
PTRC	Total Resource Cost Test with 10 percent adder
RIM	Ratepayer Impact Measure Test
Schedule 193	Demand-Side Management Cost Adjustment
SEM	Strategic Energy Management
TRC	Total Resource Cost Test
UCT	Utility Cost Test
VFD	Variable Frequency Drive
WBVN	Wattsmart Business Vendor Network

EXECUTIVE SUMMARY

PacifiCorp is a multi-jurisdictional electric utility providing retail service to customers in Utah, California, Idaho, Oregon, Washington, and Wyoming. Rocky Mountain Power, a division of PacifiCorp ("Company"), serves approximately 948,710 customers in Utah. Rocky Mountain Power, working in partnership with its retail customers and with the approval of the Public Utilities Commission of Utah ("Commission"), acquires energy efficiency and peak reduction resources as cost effective alternatives to the acquisition of supply-side resources. These resources assist the Company in efficiently addressing load growth and contribute to the Company's ability to meet system peak requirements.

Company energy efficiency and peak reduction programs provide participating Utah customers with tools that enable them to reduce or assist in the management of their energy usage, while reducing the overall costs to the Company's customers. These resources are relied upon in resource planning as a least cost alternative to supply-side resources.

This report provides details on program results, activities, expenditures, and status of the Demand-Side Management Cost Adjustment tariff rider ("Schedule 193") revenue for the performance period from January 1, 2019 through December 31, 2019.[1] The Company, on behalf of its customers, invested $53.3 million in energy efficiency and peak reduction resource acquisitions during the reporting period. The investment yielded approximately 272,387 megawatt hours ("MWh") in first year energy savings,[2] 2,833,897 MWh of lifetime savings[3] from 2019 energy efficiency acquisitions and maximum realized reductions associated with peak management activities of approximately 202 megawatts.[4] Net benefits based on the projected value of the energy savings over the life of the individual measures are estimated at $132 million [5].

The Demand-side Management ("DSM") portfolio was cost effective based on four of the five standard cost effectiveness tests[6] for the reporting period. The ratepayer impact cost 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. The DSM portfolio cost effectiveness is provided in Table 1. Annual performance information for 2019 cost effectiveness, including inputs, is provided in detail in Appendix 2.

[1] Appendix 1 provides specific requirements from Docket No. 17-035-04 and where they are located in the annual report and appendices.
[2] Reported ex-ante savings are gross and at generation.
[3] Estimated lifetime savings of 2019 Energy Efficiency Acquisitions was calculated by multiplying First Year Acquisitions (measured at the generator) by the weighted average measure life of the portfolio of 10.4 years. No discount was assumed for possible savings degradation over the life of the measures. Savings are gross at generator.
[4] Realized load as measured at generation.
[5] See Table 1 – Utility Cost Test Net Benefits.
[6] Cost effectiveness results include realization rates and Net-to-Gross ("NTG") ratios.

Table 1
DSM Portfolio Cost Effectiveness

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PacifiCorp Total Resource Test plus 10 percent (PTRC)[7]	2.03	$139,585,929
Total Resource Cost Test (TRC)[8]	1.84	$114,524,503
Utility Cost Test (UCT)[9]	2.11	$132,075,746
Participant Cost Test (PCT)[10]	2.57	$(1,281,170)
Ratepayer Impact Cost Test (RIM)[11]	0.99	$134,670,875

2019 Performance Compared to Forecast

Table 2 compares the November filing to actual savings achieved.

[7] The PTRC is the total resource cost test with an additional 10 percent added to the benefit side of the benefit/cost formula to account for non-quantified environmental and non-energy benefits of conservation resources over supply side alternatives.
[8] The TRC considers the benefits and costs from the perspective of all utility customers, comparing the total costs and benefits from both the utility and utility customer perspectives. It's assumed to be the closest in valuation methodology to how supply-side resources are valued.
[9] The UCT provides a benefit to cost perspective from the utility only, comparing 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.
[10] The PCT compares the portion of the resource paid directly by participants to the savings realized by the participants.
[11] The RIM examines the impact of energy efficiency expenditures on non-participating ratepayers overall. Unlike supply-side investments, energy efficiency programs reduce energy sales. Reduced energy sales can lower revenue requirements while putting near-term upward pressure on rates as the remaining fixed costs are spread over fewer kilowatt-hours.

Table 2
2019 Forecast to Actual Savings Comparison

Utah 2019 DSM Programs	2017 IRP for 2019 (Gross - at Gen) MWH	MW	2019 Forecast (Gross - at Gen) MWH	MW	2019 Actual (Gross - at Gen) MWH	MW*
Class 1 - Load Control Programs						
A/C Load Control		115		115		202
Irrigation Load Control		20		20		N/A
Total Class 1		135		**135**		**202**
Class 2 - Residential Programs						
Low Income	N/A	N/A	180	0	285	0
Home Energy Reports	N/A	N/A	48,500	9	36,310	7
wattsmart Homes	N/A	N/A	61,365	12	64,287	12
Total Residential Class 2	**N/A**	**N/A**	**110,045**	**21**	**100,882**	**19**
Class 2 - Non-Residential Programs						
wattsmart Business	N/A	N/A	188,675	36	171,505	33
Total Non-Residential Class 2	**N/A**	**N/A**	**188,675**	**36**	**171,505**	**33**
Total Class 2	**255,190[12]**	**49**	**298,720**	**57**	**272,387**	**52**
Total Class 2 Forecast Estimated Savings Range with Home Energy Reports First Year Savings			**283,784 - 313,656**			
Total Class 2 with Home Energy Reports Incremental Savings Only			**242,430 - 267,949**	**48**	**236,077**	**45**

2019 Performance

Program and Sector level results for 2019 are provided in Table 3.

[12] The IRP accounts for incremental Home Energy Report (HER) savings only, whereas the 2019 forecast and the 2019 actuals account for first year savings. To provide greater parity for comparison purposes, the last two rows in Table 2 show Class 2 with and without HER savings.

Table 3[13]
Utah Program Results for January 1, 2019 – December 31, 2019[14]

Load Management Programs	MW/Yr Savings (at site)	MW/Yr Savings (at gen)	Program Expenditures
Cool Keeper	183	202	$ 6,026,271
Irrigation Load Control	N/A	N/A	$ 249,184
Total Load Management	**183**	**202**	**$ 6,275,455**
Energy Efficiency Programs	**kWh/Yr Savings (at site)**	**kWh/Yr Savings (at gen)**	**Program Expenditures**
Low Income Weatherization	260,589	284,871	$ 86,614
Home Energy Reporting	33,214,620	36,309,558	$ 858,307
wattsmart Homes	58,807,482	64,287,163	$ 12,984,642
Total Residential	**92,282,691**	**100,881,592**	$ 13,929,564
Total *Watt*smart Business	**158,675,944**	**171,505,374**	**$ 31,372,618**
Total Energy Efficiency	**250,958,635**	**272,386,966**	**$ 45,302,182**
Other Portfolio Expenditures			
Outreach and Communications			$ 1,161,480
Portfolio - EM&V Non-Residential			$ 34,581
Portfolio - EM&V Residential			$ 323,472
Portfolio - Systems Support			$ 147,369
Portfolio Potential Study			$ 18,033
Portfolio Energy Code Training			$ 70,616
Total Utah Program Expenditures			**$ 53,333,189**

[13] Reported savings are ex-ante.
[14] The values at generation include line losses between the customer site and the generation source. The Company's line losses by sector for 2019 are 9.32 percent for residential, 8.71 percent for commercial, 5.85 percent for industrial and 9.24 percent for irrigation.

REGULATORY ACTIVITIES

During the reporting period, the Company made a number of filings with the Commission to be in compliance with various reporting requirements and to modify DSM programs. The Company also provided various reports and evaluations to the DSM Steering Committee.

- On February 1, 2019, the Company circulated its quarterly DSM Balancing Account Report for the fourth quarter of 2018 to the DSM Steering Committee.

- On February 8, 2019, an advice letter was filed in Docket No. 19-035-T01 to make changes to the *wattsmart Business* program, administered through Schedule 140. Changes were proposed to modify the design of lighting system retrofits, add new measure variations for Advanced Rooftop Unit controls, and adjust incentives for mid-market lighting and new construction. The Commission approved the proposed changes in its order issued April 22, 2019, with an effective date of April 23, 2019.

- On March 19, 2019, an advice letter was filed in Docket No. 19-035-T04 to make changes to the *Low Income Weatherization* program, administered through Schedule 118. Changes were proposed to add eligibility for insulation to homes with cooling systems, allow for the replacement of inefficient evaporative coolers and window air conditioning units, add crisis measure funding, and to extend energy education funding to all program participants. The Commission approved the proposed changes in its order issued April 11, 2019, with an effective date of April 19, 2019.

- On March 22, 2019, an advice letter was filed in Docket No. 19-035-T05 to make changes to the *Cool Keeper* program, administered through Schedule 114. Changes were proposed to update the structure of Schedule 114 to become an umbrella tariff for demand response offerings, extend the dispatch period and hours, increase incentives, and change the current incentive structure for customers from a one-time annual bill credit to a monthly credit for each month of program participation. The Commission approved the proposed changes in its order issued April 17, 2019, with an effective date of April 22, 2019.

- On April 24, 2019, a 45-day notice was posted on the Company's website to make modifications to the wattsmart Homes program through the "up to" incentive process established in Docket No. 15-035-T13. Key modifications included shifting incentives for central air conditioner and gas furnaces with electrically commutated motors from a split customer and mid-market incentive to solely mid-market. The intent of this shift was to drive market transformation by improving stocking practices and increasing the availability of more energy efficient HVAC equipment through distributor and manufacturing channels. Notice of these changes was also sent to the DSM Steering Committee on April 24, 2019. The posted modifications went into effect June 10, 2019.

- On April 24, 2019, a 45-day notice was posted on the Company's website to make modifications to the wattsmart Business program through the "up to" incentive process established in Docket No. 16-035-T03. Key modifications included shifting incentives for air-cooled packaged unitary commercial air conditioners from a split customer and mid-market incentive to solely mid-market. The intent of this shift was to drive market transformation by improving stocking practices and increasing the availability of more energy efficient HVAC equipment through distributor and manufacturing channels. Notice of these changes was also sent to the DSM Steering Committee on April 24, 2019. The posted modifications went into effect June 10, 2019

- On May 1, 2019, the Company circulated its quarterly DSM Balancing Account Report for the first quarter of 2019 to the DSM Steering Committee.

- On June 18, 2019, the 2018 Energy Efficiency and Peak Reduction Report was filed in Docket No. 19-035-22. The Commission approved a one-time extension request to shift the due date of this report in its order issued May 15, 2019. The Commission acknowledged the report as being compliant with reporting requirements in its correspondence issued August 6, 2019.

- On July 1, 2019, the Company filed its DSM Spring Semi-Annual Forecast Report in Docket No. 19-035-28. The Commission acknowledged the report as being compliant with reporting requirements in its correspondence issued August 21, 2019.

- On July 16, 2019, an advice letter was filed in Docket No. 19-035-T10 to make changes to the *wattsmart Homes* program, administered through Schedule 111. Changes were proposed to 1) retire offerings for advanced power strips, insulation, low-flow showerheads with thermostatic valves, and gas furnaces with electronically commutated motors, 2) add new offerings for evaporative coolers, ground source heat pumps, whole house ventilation fans, rooftop heat tape timers, and new homes, and 3) adjust offerings for smart thermostats, evaporative coolers, central air conditioners, and heat pumps. The Commission approved the proposed changes in its order issued August 9, 2019, with an effective date of August 15, 2019.

- On July 31, 2019, the Company circulated its quarterly DSM Balancing Account Report for the second quarter of 2019 to the DSM Steering Committee.

- On October 25, 2019, the Company posted its *wattsmart Homes* 2017-2018 Program Evaluation to its website and notified the DSM Steering Committee.

- On November 1, 2019, the Company circulated its quarterly DSM Balancing Account Report for the third quarter of 2019 to the DSM Steering Committee

- On November 1, 2019, the Company filed its DSM Fall Semi-Annual Forecast Report in Docket No. 19-035-28. The Commission acknowledged the report as being compliant with reporting requirements in its correspondence issued December 23, 2019.

- On December 20, 2019, the Company filed for approval of its 2019 Strategic Communications and Outreach Plan for DSM programs in Docket No. 19-035-44. The Commission approved the plan in its order issued January 16, 2020, with an effective date of January 20, 2020.

- On December 30, 2019, an advice letter was filed in Docket No. 19-035-T08 to issue a one-time $22 million refund to customers through Schedule 194 on their February 2020 electric bills. The credit was to be 32.5 percent of customers' total Schedule 193 charges from January 2019 to December 2019. The Commission approved the one-time refund in its order issued January 24, 2020, with an effective date of February 1, 2020.

Advisory Group and Steering Committee Activities:

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

The Company consulted with the DSM Steering Committee and DSM Advisory Group throughout 2019 on various matters and held formal meetings on the following matters:

February 12, 2019 – DSM Steering Committee
- Reviewed the purpose and role of the DSM Steering Committee;
- Provided an update on demand response; and
- Reviewed cost effectiveness rules and standards.

June 25, 2019 – DSM Steering Committee
- Reviewed the semi-annual report;
- Reviewed the marketing research survey results;
- Discussed incentive comparison methodology related to *wattsmart Business*;
- Provided an update on the *Irrigation Load Control* program; and
- Discussed advice letter proposals for *wattsmart Homes*.

June 25, 2019 – DSM Advisory Group
- Reviewed the 2018 DSM Annual Report; and
- Reviewed program evaluations.

August 22, 2019 – DSM Steering Committee
- Discussed the 2019 IRP publication delay;
- Discussed cost effectiveness research;
- Reviewed cost effectiveness of *wattsmart Homes* program; and
- Discussed program strategy for small business direct install delivery channel.

October 29, 2019 – DSM Steering Committee

- Discussed the 2019 IRP publication;
- Discussed the November 1st 2020 Forecast Report;
- Discussed Schedule 193 rate analysis;
- Provided an update on the *Cool Keeper* program;
- Discussed *wattsmart Business* vendor incentives;
- Discussed 2020 marketing campaign and survey results; and
- Brainstormed ways to improve the DSM Advisory Group.

November 21, 2019 – DSM Advisory Group

- Reviewed the 2017-2018 *wattsmart Homes* Program Evaluation

DSM EXPENDITURES

Energy efficiency and peak reduction activities are funded by revenue collected through Schedule 193. Expenditures are charged as incurred. The DSM balancing account is the mechanism used for managing Schedule 193 revenues collected and tracking the offsetting DSM incurred expenses. The balancing account summary for 2019 is shown in Table 4.

Table 4
Schedule 193 Balancing Account Summary

Month	Monthly Program Costs	Monthly Net Accrued Costs	Rate Recovery	Carrying Charge	Cash Basis Accumulated Balance	Accrual Based Accumulated Balance
18-Dec					$ (16,881,296)	$ (13,057,310)
19-Jan	$ 2,306,948	$ 409,558	$ (5,541,819)	$ (141,978)	$ (20,258,145)	$ (16,024,601)
19-Feb	$ 3,129,924	$ (851,191)	$ 8,834,474	$ (109,568)	$ (8,403,315)	$ (5,020,962)
19-Mar	$ 3,365,855	$ 929,979	$ (4,918,665)	$ (70,454)	$ (10,026,579)	$ (5,714,248)
19-Apr	$ 4,141,931	$ (298,685)	$ (4,518,162)	$ (78,398)	$ (10,481,209)	$ (6,467,562)
19-May	$ 3,733,449	$ (389,337)	$ (4,543,908)	$ (83,553)	$ (11,375,222)	$ (7,750,912)
19-Jun	$ 3,123,513	$ 1,099,368	$ (5,556,106)	$ (96,640)	$ (13,904,454)	$ (9,180,777)
19-Jul	$ 4,088,790	$ 377,100	$ (6,966,777)	$ (117,761)	$ (16,900,202)	$ (11,799,424)
19-Aug	$ 4,218,558	$ 101,144	$ (7,886,882)	$ (143,786)	$ (20,712,312)	$ (15,510,391)
19-Sep	$ 5,581,425	$ (705,972)	$ (7,345,074)	$ (165,735)	$ (22,641,696)	$ (18,145,747)
19-Oct	$ 4,156,269	$ 757,369	$ (4,957,659)	$ (176,850)	$ (23,619,937)	$ (18,366,619)
19-Nov	$ 5,012,554	$ 360,815	$ (4,730,751)	$ (180,202)	$ (23,518,336)	$ (17,904,203)
19-Dec	$ 8,789,582	$ 276,491	$ (5,301,477)	$ (167,118)	$ (20,197,350)	$ (14,306,725)
2019 Total	**$ 51,648,796**	**$ 2,066,639**	**$ (53,432,808)**	**$ (1,532,043)**		

Column Explanations:

Monthly Program Costs - Monthly expenditures for all DSM program activities posted in 2018.

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

Rate Recovery - Revenue collected through Schedule 193.

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

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

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

PLANNING PROCESS

Integrated Resource Plan

The Company develops a biennial integrated resource plan ("IRP") as a means of balancing cost, risk, uncertainty, supply reliability/deliverability and long-run public policy goals.[15] The plan presents a framework of future actions to ensure the Company continues to provide reliable, reasonably priced service to customers. Energy efficiency and peak management opportunities are incorporated into the IRP based on their availability, characteristics and costs.

PacifiCorp divides energy efficiency and peak management resources into four general classes:

- **Class 1 DSM – Resources from fully dispatchable or scheduled firm capacity product offerings/programs** – After a customer agrees to participate in a Class 1 DSM program, the timing and persistence of the load reduction is involuntary on their part within the agreed upon limits and parameters of the program. Program examples include residential and small commercial central air conditioner load control programs that are dispatchable, and irrigation load management and interruptible or curtailment programs (which may be dispatchable or scheduled firm, depending on the particular program design or event noticing requirements).

- **Class 2 DSM – Resources from non-dispatchable, firm energy and capacity product offerings/programs** – Class 2 DSM programs are those for which 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 on a customer's part to manage the energy use at their facility or home. Class 2 DSM programs generally provide financial or service incentives to customers to improve the efficiency of existing or new customer-owned facilities through: (1) the installation of more efficient equipment, such as lighting, motors, air conditioners, or appliances; (2) upgrading building efficiency through improved insulation levels, windows, etc.; or (3) behavioral modifications, such as strategic energy management efforts at business facilities and home energy reports for residential customers. The savings endure (are considered firm) over the life of the improvement or customer action. Program examples include comprehensive commercial and industrial new and retrofit energy efficiency programs, comprehensive home improvement retrofit programs, strategic energy management and home energy reports.

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

- **Class 3 DSM – Resources from price responsive energy and capacity product offerings/programs** – Class 3 DSM programs seeks to achieve short-duration (hour by hour) energy and capacity savings from actions taken by customers voluntarily, based on a financial incentive or signal. As a result of their voluntary nature, participation tends to be low and savings are less predictable, making Class 3 DSM resources less suitable to incorporate into resource planning, at least until their size and customer behavior profile provide sufficient information for a reliable diversity result (predictable impact) for modeling and planning purposes. Savings typically only endure for the duration of the incentive offering and, in many cases, loads tend to be shifted rather than being avoided. The impacts of Class 3 DSM resources may not be explicitly considered in the resource planning process; however, they are captured naturally in long-term load growth patterns and forecasts. Program examples include time-of-use pricing plans, critical peak pricing plans, and inverted block tariff designs

- **Class 4 DSM—Non-incented behavioral-based savings achieved through broad energy education and communication efforts –** Class 4 DSM programs promote reductions in energy or capacity usage through education. These efforts seek to help customers better understand how to manage their energy usage through no-cost actions such as conservative thermostat settings and turning off appliances, equipment and lights when not in use. The programs are also used to increase customer awareness of additional actions they might take to save energy and the service and financial tools available to assist them. Similar to Class 3 DSM resources, the impacts of Class 4 programs may not be explicitly considered in the resource planning process; however, they are captured naturally in long-term load growth patterns and forecasts. Program examples include Company brochures with energy savings tips, customer newsletters focusing on energy efficiency, case studies of customer energy efficiency projects, and public education campaigns.

Class 1 and 2 DSM resources are included as resource options in the resource planning process. Class 3 and 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, the Company engages a third-party consultant to conduct a DSM Potential Assessment ("Potential Assessment").[16] The study primarily seeks to develop reliable estimates of the magnitude, timing and cost of DSM resources likely available to PacifiCorp over the 20-year planning horizon of the IRP. The main focus of the Potential Assessment is on resources with sufficient reliability characteristics that are anticipated to be technically feasible and considered achievable during the IRP's 20-year planning horizon. By definition, the estimated achievable technical potential is the energy efficiency potential that may be achievable to acquire during the 20-year planning horizon prior to cost effectiveness screening.

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

[16] PacifiCorp's Demand-side Resource Potential Assessments can be found at http://www.pacificorp.com/es/dsm.html.

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.

Cost effectiveness

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

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. Utah observes the UCT as the primary cost effectiveness test.

PEAK REDUCTION PROGRAMS

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

Programs targeting capacity-related resources are often specific to end use loads most prevalent in a given jurisdiction, such as the agricultural pumping and residential cooling loads in Utah. In 2019, the Company offered the *Irrigation Load Control* program (Schedule 105) for the agricultural sector and the *Cool Keeper* program (Schedule 114) for the residential and small commercial sectors.

The Peak Reduction Programs achieved a total of 247 MW of maximum potential demand reduction (gross at generation) in 2019. Cost effectiveness results for the reporting period are provided in Table 5.

Table 5
Cost Effectiveness for Load Control Portfolio[17]

Benefit/Cost Test	Benefit/Cost Ratio
PTRC	PASS
TRC	PASS
UCT	PASS
PCT	N/A
RIM	PASS

[17] Avoided costs are considered confidential on load control programs. Cost effectiveness ratios and inputs will be available under a protective agreement. A "Pass" designation equates to a benefit to cost ratio of 1.0 or better.

IRRIGATION LOAD CONTROL

The *Irrigation Load Control* program is offered to irrigation customers receiving electric service on Schedule 10, Irrigation and Soil Drainage Pumping Power Service. Participants enroll with a third party administrator and allow the curtailment of their electricity usage in exchange for an incentive. Customer incentives are based on a site's average available load during load control program hours adjusted for the number of opt outs or non-participation. The program is available May 28 through August 16 and its hours are from 12 pm to 8 pm Mountain Time, Monday through Friday, and do not include holidays. For most participants, their irrigation equipment is set up with a dispatchable two-way control system giving the Company control over their loads. Participants are provided a day-ahead notification of control events and have the choice to opt-out of a limited number of dispatch events per season.

A summary of the program's cost effectiveness results and participation for the 2019 program are provided in Tables 6 and 7.

Table 6
Cost Effectiveness for Irrigation Load Control

Benefit/Cost Test	Benefit/Cost Ratio
PTRC	PASS
TRC	PASS
UCT	PASS
PCT	N/A
RIM	PASS

Table 7
Irrigation Load Control Program Performance

Total Enrolled MW (Gross – at Gen)	20
Maximum Potential MW (at Gen)	12
Average Realized load MW (at Gen)	N/A
Maximum Realized load MW (at Gen)	N/A
Participation Customers	40
Participation (Sites)	182

Program Management

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

Program Administration

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

- Customer satisfaction including call center support,
- Marketing to maintain a minimum level of megawatt reductions,
- Field operations including installation and maintenance of the EnerNOC devices,
- Management of participation data and reporting to actively manage the program,
- Quality control of the Irrigation Load Control device infrastructure,
- A platform to dispatch the communication network, and
- Customer incentives.

Irrigation Load Control Events and Performance

There were zero load control events initiated called in 2019. In general energy prices were low during the program control season and it did not make economic sense to call upon the program. For the program to add value and lower overall net power costs, the participating load does not need to always be curtailed. The available load from the Irrigation program can be utilized as a reserve which provides value to the program and benefits customers.

COOL KEEPER

The *Cool Keeper* program is an air conditioner direct load management program targeting residential and commercial customers who cool their homes and businesses with electric central air conditioners. The program is called upon for a curtailment under varying circumstances. Due to the flexibility of the program and the real-time dispatch capabilities the resources can be utilized for various smart grid applications. When there is a grid need, the *Cool Keeper* control equipment installed on a participating customer's cooling equipment is sent a signal to cycle the operation of the air conditioners compressor "off and on" for brief periods each hour in coordination with the air conditioners of other participating customers. For their participation, customers receive a monthly bill credit for participation. The maximum annual incentive for participation is $30 or $60 depending on the size of the air-conditioner. The program is available May 1 through September 30 and its hours are from 2 pm to 9 pm Mountain Time, Monday through Friday, and excludes holidays. The program is limited to 100 hours per program year and events will be limited to four hours per day. In the event of a system emergency, the Company may, at its discretion, expand the dispatch parameters as noted in the tariff[18]. For program participants who are not enrolled for the entire season will receive a daily pro-rated credit for program participation.

The *Cool Keeper* load control system operates through two-way communications equipment with a wireless mesh network for improved control, measurement and verification of program performance.

[18] https://www.rockymountainpower.net/content/dam/pcorp/documents/en/rockymountainpower/rates-regulation/utah/rates/114_Load_Management_Program.pdf

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

Table 8
Cost Effectiveness for *Cool Keeper*

Benefit/Cost Test	Benefit/Cost Ratio
PTRC	PASS
TRC	PASS
UCT	PASS
PCT	N/A
RIM	PASS

Table 9
Program Performance for *Cool Keeper*

Total Enrolled MW (at Gen)	215
Maximum Potential MW (at Gen)	235
Average Realized Load MW (at Gen)	77
Maximum Realized MW (Gross – at Gen)	202
Total Participation	215,000

Cool Keeper Load Control Events and Performance

There were 19 control events initiated in 2019. The date, time and estimated impact for each event is provided in Table 10. During the 2019 control season, the Company modified the cycling strategy for events approximately 30 minutes or less. For short events, the cycling strategy was modified to a 100% cycling compared to a 50% cycling for longer events. The modified cycling strategy is allowing the program to curtail significantly more load over shorter periods of time without creating a negative customer experience. The program has the ability to be called upon real-time (no notification) which increases the value and flexibility of the resource. This flexibility allows the program to be utilized for frequency response and contingency reserve obligations which create more opportunities for the program to be called upon.

The program called significant more events during 2019 compared to previous years, but the length of each event was significantly shorter. The majority of customers are unaware control events are occurring and there is no noticeable increase to the temperature in their residence or business. Customer satisfaction for the overall program remained very high during 2019 based on annual customer surveys performed by the program administrator.

Table 10
Cool Keeper Load Control Events

Date	Event	Event Times (MST)	Utah Reductions (MW)
5/16/2019	1	15:58 - 16:10	21
6/27/2019	2	13:20 - 13:25	36
7/26/2019	3	1:12 - 1:17	62
8/1/2019	4	13:51 - 13:56	103
8/3/2019	5	14:41 - 14:46	138
8/5/2019	6	11:01 - 11:06	101
8/7/2019	7	9:36 - 9:42	67
8/16/2019	8	9:21 - 9:26	39
8/18/2019	9	19:38 - 20:00	202
8/21/2019	10	2:41 - 2:50	43
8/23/2019	11	11:43 - 11:48	48
9/2/2019	12	3:29 - 3:34	45
9/3/2019	13	13:15 - 13:20	74
9/4/2019	14	17:22 - 17:45	191
9/5/2019	15	15:35 - 16:16	159
9/10/2019	16	22:22 - 22:27	30
9/11/2019	17	21:52 - 21:57	17
9/19/2019	18	3:01 - 3:06	16
11/4/2019	19	5:32 - 5:37	0

Program Management

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

Program Administration

The *Cool Keeper* program is administered by GoodCents and Eaton. GoodCents is responsible for:

- Field operations including trouble calls, installation, and maintenance of the *Cool Keeper* devices,
- Customer satisfaction including call center support,
- Management of *Cool Keeper* participation data and reporting to actively manage the program,
- Quality control of the *Cool Keeper* device infrastructure to ensure a 99% availability of active devices, and
- Marketing to maintain a minimum level of participation and megawatt reductions.

Eaton is responsible for:

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

Program Changes

A tariff change occurred in 2019 to increase program participation incentive. The incentives increased from $20 to $30 for residential and from $40 to $60 for commercial air conditioners. In addition to increasing participation incentives, the incentives during 2019 were provided as a monthly bill credit to participating customers.

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: *wattsmart Homes* – Schedule 111, *Home Energy Reports, and Low Income Weatherization – Schedule 118, and Non-Residential Energy Efficiency (wattsmart Business)* Schedule 140. In addition to the energy efficiency programs, the Company, on behalf of customers, invested in outreach and education for the purpose of promoting the efficient use of electricity and improving program performance.

Energy efficiency savings are reported as ex-ante, gross and at site. The portfolio was cost effective from two of the five cost tests. The ratepayer impact test was less than 1.0 indicating that there is near term upward pressure placed on the price per kWh given a reduction in sales. Cost effectiveness results of the 2019 energy efficiency portfolio is provided in Table 11.

Table 11
Cost Effectiveness for Energy Efficiency Portfolio

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	0.85	$(13,952,946)
TRC	0.77	$(20,967,920)
UCT	1.49	$23,092,005
PCT	2.28	$108,162,193
RIM	0.39	$(111,662,409)

Table 12 provides a program-level summary of gross and net savings acquired in 2019 at site and at generation.

Table 12
Energy Efficiency Gross and Net Savings[19]

Program	Gross kWh savings (@ site)	Net kWh savings (@ site)	Gross kWh savings (@ gen)	Net kWh savings (@ gen)
Low Income Weatherization	260,589	260,589	284,871	284,871
Home Energy Reporting	33,214,620	32,550,328	36,309,558	35,583,368
wattsmart Homes	58,807,482	39,182,099	64,287,163	42,833,087
*watt*smart Business	158,675,945	129,858,830	171,505,374	141,172,131
Total	**250,958,636**	**201,851,846**	**272,386,966**	**219,873,457**

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

Estimated Peak Contributions

The reported capacity reduction of 45.73 MW (at generation) for energy efficiency programs during 2019 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 2017 IRP is used to translate 2019 energy savings to estimated demand reduction during the system peak. The use 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 2017 IRP. Use of this factor in determining the MW contribution of energy efficiency programs is detailed in Table 13.

Table 13
Estimated Peak Contribution

Description	Value
First year energy efficiency program MWh savings acquired during 2019 @ Gen	272,387
Conversion factor: Coincident MW/MWh	0.0001679
Estimated coincident peak MW contribution of 2019 energy efficiency acquisitions	45.73[20]

[20] The 52 MW in Table 2 was calculated using an average conversion value, while the 45.73 MW reported in Table 13 used a specific coincident system peak conversion factor.

RESIDENTIAL PROGRAMS

The residential energy efficiency portfolio was comprised of three programs: *wattsmart Homes* (formerly Home Energy Savings), *Home Energy Reports*, and *Low Income Weatherization.*

The residential portfolio was cost effective based on two of the five standard cost effectiveness tests for the 2019 reporting period. The marginal cost effectiveness for the TRC and PTRC is largely due to the reduction in avoided costs calculated for the 2017 IRP and increased customer reported costs for specific measure groups in *wattsmart Homes* program. The RIM was less than 1.0 indicating that there is near term upward pressure placed on the price per kWh given a reduction in sales.

Table 14 shows the cost effectiveness results for the residential portfolio. Includes all residential-sector portfolio costs.

Table 14
Cost Effectiveness for Residential Portfolio

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	0.67	$(11,683,562)
TRC	0.61	$(13,835,791)
UCT	1.51	$7,269,255
PCT	1.98	$33,106,286
RIM	0.35	$(40,621,711)

WATTSMART HOMES

The *wattsmart Homes* 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 1, 2, or 3. Landlords who own property where the tenant is billed under Electric Service Schedules 1, 2, or 3 also qualify for the program. Program cost effectiveness is provided in Table 15 below.

Table 15
Cost Effectiveness for *wattsmart Homes*

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	0.64	$ (12,272,532)
TRC	0.58	$ (14,255,910)
UCT	1.53	$ 6,849,137
PCT	1.86	$ 29,170,041
RIM	0.35	$ (37,168,522)

Program participation by measure category is provided in Table 16 and by delivery channel in Table 17.

Table 16
Program Performance by Measure Categories (Units)

Measure Category	Total kWh (at Site)	Total Incentive	Total Quantity
Appliances	-	$ -	77
Building Shell	298,624	$ 195,123	2,063,157 sq ft
Energy Kits	527,378	$ 17,329	2,179
HVAC	10,223,386	$ 2,347,248	23,896
Lighting	36,214,803	$ 2,108,500	1,878,456
Plumbing	-	$ -	2
New Homes	1,960,936	$ 875,175	31,042
Water Heating	1,362,726	$ 55,661	387,404
Whole Building	8,219,629	$ 2,229,924	4,386,213
Grand Total	**58,807,482**	**$ 7,828,960**	

Table 17
Program Performance by Delivery Channel

Delivery Channel	Total kWh (at Site)	Total Incentive	Total Quantity
Downstream	**13,969,736**	**$ 3,867,644**	
Appliances	-	$ -	2
Building Shell	298,624	$ 195,123	2028sq ft
Energy Kits	527,378	$ 17,329	2,179
HVAC	2,954,067	$ 546,643	10,897
Lighting	-	$ -	54
Plumbing	-	$ -	2
New Homes	1,960,936	$ 875,175	4,295
Water Heating	9,101	$ 3,450	12
Whole Building	8,219,629	$ 2,229,924	217
Midstream	**3,342,549**	**$ 1,328,330**	
HVAC	3,342,549	$ 1,328,330	9,530
Upstream	**41,495,197**	**$ 2,632,986**	
HVAC	3,926,769	$ 472,275	88
Lighting	36,214,803	$ 2,108,500	4,070
Water Heating	1,353,625	$ 52,211	54
Grand Total	**58,807,482**	**$ 7,828,960**	

Table 18 below shows new construction measures offered, broken out by single family and multifamily participation rates.

Table 18
New Construction Single Family and Multifamily Participation

New Construction Measures	Total kWh (at Site)	Total Incentives
Single Family		
Central Air Conditioner	19,376	$ 10,400
95% Gas Furnace with ECM	80,431	$ 44,850
Smart Thermostat	35,866	$ 7,900
ENERGY STAR certification	50,640	$ 15,825
HERS index 56-62	444,480	$ 225,050
HERS index 49-55	1,181,139	$ 501,900
HERS index <=48	146,581	$ 68,000
Total Single Family	**1,958,513**	**$ 873,925**
Multi-Family		
New Construction	3,517,863	$ 887,677
Total Multi-Family	**3,517,863**	**$ 887,677**
Grand Total	**5,476,376**	**$ 1,761,602**

The custom multifamily offering includes low income and market rate properties. Table 19 provides savings results for the custom multifamily program in 2019.

Table 19
Custom Multifamily

Custom Multifamily	Total kWh (at Site)	Total Incentives
Low Income	**3,500,337**	**$ 1,050,101**
New Construction	164,223	$ 49,267
Retrofit	3,336,114	$ 1,000,834
Market Rate	**4,719,292**	**$ 1,179,823**
New Construction	3,353,640	$ 838,410
Retrofit	1,365,652	$ 341,413
Grand Total	**8,219,629**	**$ 2,229,924**

Program Management

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

Program Administration

The *wattsmart Homes* program is administered by CLEAResult, Nexant and ICAST, who are responsible for:

- Retailers – 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 manufacturer and retailer for the promotion of discounted LED bulbs, evaporative coolers and room air conditioners. The agreements include specific retail locations, products receiving incentives and not-to-exceed annual budgets.
- Trade ally engagement – CLEAResult provides participating weatherization and HVAC trade allies with program materials, training, and regular updates. Nexant provides participating central air conditioner and gas furnace distributors and trade allies with program materials, training and regular updates.
- Inspections – CLEAResult and Nexant recruit and hire inspectors to verify the installation of measures. A summary of the inspection processes is in Appendix 3.
- Multifamily new construction and retrofit – ICAST identifies, recruits, supports and assists builders, developers, and property owners and managers to include energy efficiency products during the build phase and/or as part of renovating properties.
- Manage savings acquisition to targets within budget.
- Continual improvement of program operations and customer satisfaction.

- Incentive processing and call-center operations – CLEAResult receives 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. Nexant receives requests for central air conditioner and gas furnace incentives, determines eligibility requirements are met, works directly with distributors and trade allies when information is incorrect and/or missing and processes the application for payment. ICAST and local Home Energy Rating Score ("HERS") raters provide modeling services for calculating kWh savings above codes and standards. ICAST receives requests for incentives, determines eligibility requirements are met, works directly with builders and HERS raters when information is incorrect and/or missing and processes the application for payment.
- Program specific customer communication and outreach – A summary of the communication and outreach conducted by CLEAResult, ICAST and Nexant on behalf of the Company are outlined in Appendix 7.

Infrastructure

Multiple retailers and trade allies help deliver energy efficient products on behalf of the Company. The list of participating and non-participating retailers and trade allies by delivery channel and measure is provided in Appendix 4.

Program Changes

Since 2018, the *wattsmart Homes* program offered instant incentives via coupon downloads for smart thermostats in participating online and brick and mortar retailers. Additionally, heat pump water heaters were transitioned to retail midstream.

In an effort to prepare for the expiration of the CLEAResult contract and to have the ability to improve program performance quickly, a Request for Proposal ("RFP") for Master Service Agreements ("MSA") was issued and awarded to six different firms who qualify to manage either all aspects of the program or specific deliveries, such as marketing and engineering services.

In the fourth quarter, an RFP was issued to the qualified bidders of the MSA firms to implement the Company's residential program broken down by services categories. Six proposals were received. Two bidders, Evergreen Incorporated and CLEAResult won the bids and are positioned to begin program implementation.

HOME ENERGY REPORTS PROGRAM

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.

Program cost effectiveness is provided in Table 20.

Table 20
Cost effectiveness for Home Energy Reports Program

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	1.93	$798,623
TRC	1.75	$647,993
UCT	1.75	$647,993
PCT	N/A	N/A
RIM	0.34	$ (2,888,229)

Table 21 summarizes the savings and participation by wave. The "legacy" group is defined as the July 2012 initial participant wave, the "expansion" group is defined as the August 2014 participant expansion wave, the "refill" group is defined as the additional customers added in August 2016 and the "refill 2" group is defined as the new refill customers who were added to receive electronic only report in November 2018. The program was able to improve cost effectiveness in 2019 compared to 2018 due to reduced program costs. The overall program costs were lower due to sending more electronic reports (email) and not incurring startup cost associated with transitioning to a new program administrator during 2018.

Table 21
Savings and Participation for Home Energy Reports

	Legacy	Expansion	Refill	Refill 2	Total
2019 Savings MWh	15,890	12,955	2,548	1,822	**33,215**
Participation as of Dec. 2019	58,099	125,676	25,060	82,061	**290,896**

Reports were initially provided to approximately 322,549 customers in 2019. The number of participants decrease over time due to customer attrition related to general customer churn (customer move-outs) and customers requesting to be removed from the program. In 2019, only 0.74% of customers (2,379 customers) have requested to be removed from the program. As of December 2019, there were 290,896 customers who were active recipients of Home Energy Reports.

Program Management

The program manager who is responsible for the *Home Energy Reports* program in Utah is also responsible for the program in Idaho and Wyoming as well as *Irrigation Load Control* program in Idaho and Utah and *Cool Keeper* program in Utah. For each program and in each state the program manager is responsible for the cost effectiveness of the program, identifying and contracting with the program administrator through a competitive bid process, establishing and monitoring program performance and compliance, and continually improving the program.

Program Administration

The *Home Energy Reports* program is administered by Bidgely. Bidgely's Utility Artificial Intelligence platform leverages energy disaggregation to provide customers with personalized information regarding their energy usage by appliance and how their usage compares to similar homes. Furthermore, users receive recommendations on how to save energy and money by making small behavioral changes to their energy consumption. The Company contracted with Bidgely to provide energy savings, software services and delivery of energy reports to customers.

Bidgely is responsible for the following:

- Design and distribute paper and electronic reports. (All participating customers either receive paper reports or an email report based upon their preferences.)
- Maximizing email treatment for customers receiving electronic reports.
- Deploying and maintaining a web portal – All participants have access to a web portal containing the same information about their usage provided in the report. In addition, all Utah residential customers (including non-participants) have access to the web portal which contains other benefits such as the ability for customers to update their home profile (for more accurate comparisons) and suggestions on ways to save energy.

LOW INCOME WEATHERIZATION

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

In 2019, the program achieved savings at site of 260,589 kWh and served 293 homes. The measures installed through the *Low Income Weatherization* program are limited to those that reduce electricity use in participant's homes. Since the majority of homes served are not electrically heated and do not have electric water heaters, the Company funds mostly lighting and refrigerator replacement costs except for ceiling insulation and wall insulation which are now applicable for dwellings with permanently installed operable electric space heating systems and/or cooling systems.

Cost effectiveness results for 2019 are provided in Table 22.

Table 22
Cost Effectiveness for Low Income Weatherization

Benefit/Cost Test	Benefit/Cost Ratio	Net Benefits
PTRC	2.31	$113,819
TRC	2.10	$95,598
UCT	2.10	$95,598
PCT	N/A	N/A
RIM	0.43	$(241,487)

Total savings, measure type and the corresponding numbers of homes that installed the measure type are provided in Table 23.

Table 23
Total Savings, Homes Served and Measure Counts

Total kWh Savings @ Site	260,589
Participation – Total number of Homes Served	293
Measure Type Installed in Each Home	**#**
Wall Insulation	6
Ceiling Insulation	21
Duct Insulation & Sealing Insulation	8
Crisis - Heating and Cooling System Repair and/or Replacement	2
Furnace Fan	117
Energy Education	92
Double Glass Replacement	1
LED bulbs	276
Refrigerator Replacement	54
Refrigerator Replacement Test Only	48
Low Income Weatherization Payments	295

Program Management

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

Program Administration

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

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

- Income Verification – The local agencies determine if participants are income eligible based on HCD guidelines. Household's interested in obtaining weatherization services apply through the agencies. The current income guidelines can be viewed at https://www.energy.gov/sites/prod/files/2019/02/f59/wpn-19-3-poverty-income-guidelines.pdf
- Energy Audit – Agencies use a United States Department of Energy approved audit tool to determine the cost effective measures to install in the participant's homes (audit results must indicate a savings to investment ratio of 1.0 or greater).
- Installation of Measures – Agencies install the energy efficiency measures.
- Post Inspections – Agencies inspect 100 percent of completed homes. HCD also inspects a random sample of homes. See Appendix 3 for verification summary.
- Billing Notification – HCD is required to submit a billing to Company within 60 days after job completion. They include a form indicating the measures installed and associated cost on each completed home along with their invoice.

Program Changes

On March 19, 2019, the Company filed changes to Utah Tariff Schedule No. 118, Low Income Weatherization Program. Changes included:

- Modifying eligibility for homes with central air condition systems or evaporative coolers to be eligible for ceiling and wall insulation measures.
- Extending Energy Education reimbursement to all households regardless of the heating type.
- Replacement of inefficient evaporative coolers and window air conditioning units with cost-effective evaporative coolers.
- Customer crisis measure in which Rocky Mountain Power reimburses agency 50% of associated costs incurred for the repair and/or replacement of heating and cooling system when determined a crisis situation for the participant.

All changes listed above were approved by the Public Service Commission of Utah in its order issued April 11, 2019, with an effective date of April 19, 2019.[21]

[21] Docket No. 19-035-T04

NON-RESIDENTIAL ENERGY EFFICIENCY

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 electricity usage through the installation of energy efficiency measures and adoption of improved energy management protocols. Qualifying measures include those which, when implemented in an eligible facility, produce verifiable electric energy efficiency improvements.

Cost effectiveness results for 2019 are provided in Table 24 and is shown with and without sector-level portfolio costs.

Table 24
Cost Effectiveness for Non-Residential Energy Efficiency

Benefit/Cost Test	Includes Evaluation Costs		Excludes Evaluation Costs	
	Benefit/Cost Ratio	Net Benefits	Benefit/Cost Ratio	Net Benefits
PTRC	0.98	$ (837,304)	0.99	$ (399,965)
TRC	0.90	$ (5,700,049)	0.90	$ (5,262,710)
UCT	1.55	$ 17,254,829	1.57	$ 17,692,168
PCT	2.48	$ 75,055,907	2.51	$ 75,493,246
RIM	0.41	$ (69,608,619)	0.41	$ (69,171,280)

Total incentives, savings and completed projects are provided in Tables 25 - 27 by customer sector, measure category and delivery channel.

Table 25
Participation by Sector

Sector	Total kWh (at Site)	Total Incentive	Bill Credits	Total # of Projects
Commercial	121,197,233	$ 14,320,895	$ 84,482	4,341
Industrial	35,117,385	$ 3,018,314	$ -	242
Irrigation	2,361,327	$ 209,917	$ -	44
Grand Total	**158,675,945**	**$ 17,549,125**	**$ 84,482**	**4,627**

Table 26
Participation by Measure Category

Measure Category	Total kWh (at Site)	Total Incentive	Bill Credits	Total # of Projects
Additional Measures	4,241,356	$ 585,388	$ -	33
Building Shell	884,657	$ 241,473	$ -	39
Compressed Air	5,397,164	$ 514,043	$ 84,482	34
Direct Install	12,386,841	$ 3,595,022	$ -	1,575
Electronics	31,034	$ 3,945	$ -	2

Measure Category	Total kWh (at Site)	Total Incentive	Bill Credits	Total # of Projects
Energy Management	39,983,199	$ 799,664	$ -	109
Farm & Dairy	67,361	$ 9,670	$ -	4
Food Service Equipment	549,803	$ 36,601	$ -	16
HVAC	27,142,752	$ 3,874,819	$ -	319
Irrigation	2,309,690	$ 200,759	$ -	42
Lighting	51,787,840	$ 5,359,477	$ -	2,360
Motors	10,396,034	$ 1,249,906	$ -	65
Refrigeration	3,498,214	$ 515,481	$ -	18
Energy Proj Mgr Co-fund	-	$ 562,876	$ -	11
Grand Total	**158,675,945**	**$ 17,549,125**	**$ 84,482**	**4,627**

Table 27
Participation by Delivery Channel

Delivery Channel	Total kWh (at site)	Total Incentive	Bill Credits	Total # of Projects
Contracted	**138,876,323**	**$ 158,675,945**	**$ 84,482**	**4,535**
Additional Measures	3,687,903	$ 3,687,903	$ -	29
Building Shell	825,532	$ 825,532	$ -	34
Compressed Air	4,176,217	$ 4,176,217	$ 84,482	27
Direct Install	12,386,841	$ 12,386,841	$ -	1,575
Electronics	31,034	$ 31,034	$ -	2
Energy Management	31,881,900	$ 31,881,900	$ -	82
Farm & Dairy	67,361	$ 67,361	$ -	4
Food Service Equipment	549,803	$ 549,803	$ -	16
HVAC	20,059,262	$ 20,059,262	$ -	291
Irrigation	2,309,690	$ 2,309,690	$ -	42
Lighting	51,620,376	$ 51,620,376	$ -	2,360
Motors	8,823,954	$ 8,823,954	$ -	59
Refrigeration	2,456,450	$ 2,456,450	$ -	13
Energy Proj Mgr Co-fund	-	$ -	$ -	1
In-house	**19,799,622**	**$ 19,799,622**	**$ -**	**92**
Additional Measures	553,453	$ 553,453	$ -	4
Building Shell	59,125	$ 59,125	$ -	5
Compressed Air	1,220,947	$ 1,220,947	$ -	7
Energy Management	8,101,299	$ 8,101,299	$ -	27
HVAC	7,083,490	$ 7,083,490	$ -	28
Lighting	167,464	$ 167,464	$ -	-
Motors	1,572,080	$ 1,572,080	$ -	6
Refrigeration	1,041,764	$ 1,041,764	$ -	5
Energy Proj Mgr Co-fund	-	$ -	$ -	10
Grand Total	**158,675,945**	**$ 178,475,567**	**$ 84,482**	**4,627**

Incentives and services offered through Wattsmart Business include:

- Typical Upgrades: streamlined incentives for lighting, HVAC, compressed air and other equipment upgrades that increase electrical energy efficiency and exceed code energy efficiency requirements.
- Small Business Direct Install: provides enhanced incentives for lighting retrofits installed by a Rocky Mountain Power contractor at eligible small business customer facilities.
- Midstream/LED instant incentives: Provides instant, point-of-purchase incentive for LED lamps, fixtures and retrofit kits sold through qualifying participating distributors. Customers purchasing qualifying equipment from non-participating suppliers can apply for incentives after purchase.
- Custom Analysis: 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 management projects can range in size from small Tune-ups to the robust Strategic Energy Management offering.
- 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 Utah Wattsmart Business Program Manager is also responsible for the Wattsmart Business program in Idaho and Wyoming. For each state, the Program Manager is responsible for managing program implementers, achieving and monitoring program performance/compliance, recommending changes in customer and vendor participation terms and conditions, cost effectiveness, inputs for regulatory changes, marketing, ensuring satisfactory customer complaint resolution, overseeing customer care center agent training (internal and 3rd party call centers) and contracting with program implementers through competitive bid processes.

Program Administration

Wattsmart Business was historically administered through two delivery models that were differentiated based upon customer size and need: 1) internal DSM delivery and 2) contracted DSM delivery. Internal delivery centered on large customers for primarily custom projects, whereas contracted delivery centered on small/medium customers for primarily typical measure projects. The internal program delivery approach was used from January 1, 2019 to June 30, 2019. On July 1, 2019 the program shifted to a fully contracted model, meaning all Utah Wattsmart Business delivery became administered by contracted implementers. The change in program administration was intended to improve customer experience by adding more contracted staff dedicated specifically to Utah Wattsmart Business customers and reducing the project timelines. A narrative of the program administration approaches is described below.

Internal DSM Delivery (January 1, 2019 to June 30, 2019)

Internal DSM Delivery targeted large energy users who generally had multiple opportunities for energy efficiency improvements, such as those that required complex custom analysis. These large projects were administered by internal Company project managers and allowed for a single point of contact to assist customers with their various opportunities. Project managers were responsible for the following:

- Single point of contact for large customers to assist with 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 17, Wattsmart Business Vendor Network Delivery Firms, below.)
- Manage engineering firms to ensure program compliance, quality of work and customer satisfaction.
- Manage Wattsmart Business projects through the whole project lifecycle from project inception to incentive payment.

Contracted DSM Delivery

The Contracted DSM delivery channel targets typical measure upgrades that serve small to medium sized business customers and, to a lesser extent, large business customers. Administration is provided through Company contracts with Nexant, Inc. ("Nexant"), Cascade Energy ("Cascade") and Willdan Energy Solutions ("Willdan"). Nexant and Cascade manage vendor coordination, training and application processing services for commercial measures and industrial/agricultural measures respectively. As of July 1st 2019, Cascade now manages the former "Internal DSM Delivery" (DSM relationship management and custom energy analysis services for large customers). Willdan manages the Small Business Direct Install and Resource Extraction offers.

Nexant and Cascade are responsible for the following:

- Vendor and Midstream/LED instant incentive engagement – includes identification, recruiting, training, supporting and assisting vendors and distributors 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 incentive project management or small/medium customer projects, including the Energy Management offer.
- Nexant provides typical measure support to vendors and customers while also receiving typical measure applications and processing/delivering incentive checks to customers and qualified vendors.
- DSM relationship management and custom analysis for large customer projects, including Energy Management and Energy Project Manager Co-funding (Cascade – July 1, 2019 to present).
- Managing savings acquisition to targets within budget.
- Continual improvement of program operations and customer satisfaction.
- Inspections – includes verifying the installation of measures on an on-going basis. A summary of the inspection process is in Appendix 3.

Willdan is responsible for:

- Small Business Direct Install (SBDI) – includes direct customer outreach, energy assessment, product supply, product installation, project inspection, incentive processing, and administrative support (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).
    - Managing savings acquisition to SBDI targets within budget.
    - Continual improvement of SBDI program operations and customer satisfaction.
- Resource Extraction – Customer relationship management and energy analysis services specific to resource extraction for oil, gas and mining customers.

Infrastructure

To illustrate the Company's delivery infrastructure, Table 28 shows the delivery channel with its respective customer segment, administrator, and measure offerings. A detailed description of each segment follows.

Table 28
Wattsmart Business Structure

Delivery Channel	Targeted Customer Segment	Administrators	Measure Types
(1/1/19 to 6/30/19) In House Project Management	Managed Accounts (Large customer accounts)	Internal staff, Contracted Engineering Firms	Custom, typical, energy management, energy project manager co-funding
Contracted Delivery	Small Business	Willdan	Small Business Direct Install
	Non-Managed Accounts (small to medium customers)	Nexant (commercial) Cascade (industrial)	Typical, midstream, custom, energy management
	(July 1, 2019 to present) Managed Accounts	Cascade & Partners	Custom, typical, energy management, energy project manager co-funding
	Resource Extraction	Willdan	Custom, typical, energy management, energy project manager co-funding

Contracted DSM Delivery – Typical Measures & Midstream Distributor Networks

To help increase and improve the supplier and installation contractor infrastructure for energy efficient equipment and services, the Company established and developed the Wattsmart Business Vendor Network (WBVN) for lighting, HVAC and motors/VFDs. This work includes identifying and recruiting vendors, providing program and technical training and providing vendor sales training and support on an ongoing basis.

The current list of Wattsmart Business Vendors who have applied and been approved as participating vendors are posted on the Company website and is included as Appendix 5 to this report. In most cases, customers are not required to select a vendor from these lists to receive an incentive.[22] Table 29 provides the engineering firms associated with the WBVN.

Table 29
Wattsmart Business Vendor Network Delivery Firms

Engineering Firm	Main Office Location	Expertise
Nexant, Incorporated (with subcontractors Evergreen Consulting Group, EMP2 and RM Energy Consulting)	Salt Lake City, UT	Commercial
Cascade Energy, with subcontractor partner Rick Rumsey, LLC	Pleasant Grove, UT Ammon, ID	Industrial, Irrigation

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

In most cases, customers are not required to select a vendor from these lists to receive an incentive.[23]

Since 2002, the WBVN has grown into a large, mature vendor network. In 2019, participating vendors continued receiving quarterly vendor performance scorecards to provide timely feedback and encourage vendors to reach "Premium" status which entitles qualifying vendors to improved visibility and enhanced co-branding with the Company. The following vendor performance criteria were established to align with program objectives:

- Industry Certification
- Level of participation (quarterly project count and delivered kWh savings)
- Customer satisfaction (measured by post-project customer surveys)
- Program satisfaction
- Project submission quality (number of submission errors)

In 2019, the number of Premium Vendors ranged from five to seven. No disciplinary actions were determined necessary for any WBVN members.

Contracted DSM Delivery – Small Business Direct Installation Offer

The Small Business Direct Install offering provides enhanced incentives for lighting retrofits installed by a Rocky Mountain Power contractor at eligible small business customer facilities. In 2019, the offer resulted in:

- kWh installed directly at customer sites: 12,386,841 kWh
- Forty-three cities and counties were served.
- 1,575 installed projects
- Average customer energy savings first year: 6,859 kWh;
- Average customer copay: $761;
- Average customer incentive: $2,283.

Internal DSM Delivery – January 1, 2019 to June 30, 2019

Internal DSM delivery targeted large, non-residential customers with custom project opportunities. Each large customer's project was directly managed by one of the Company's internal project managers. A pre-approved, pre-contracted group of engineering firms were used to perform custom facility-specific energy efficiency analysis, quality assurance and verification services for the Wattsmart Business program.

Table 30 lists the engineering firms under contract with the Company during this time to provide energy efficiency analysis for internal DSM delivered.

[23] Customers receiving Small Business Lighting incentives are required to use an approved contractor selected from a competitive request for bid process.

Table 30
Engineering Stable
Engineering Firms on contract through June 30, 2019

Engineering Firm	Main Office Location
Brendle Group	Fort Collins, CO
Cascade Energy Engineering	Cedar Hills, UT
EMP2, Inc	Richland, VA
Energy Resource Integration, LLC	Sausalito, CA
4Sight Energy	Boise, ID
ETC Group, Incorporated	Salt Lake City, UT
Evergreen Consulting Group	Beaverton, OR
kW Engineering, Inc.	Salt Lake City, UT
Nexant, Incorporated	Salt Lake City, UT
RM Energy Consulting	Pleasant Grove, UT
Rick Rumsey, LLC	Ammon, ID
Solarc Architecture & Engineering, Inc.	Eugene, OR

Contracted DSM Delivery – July 1, 2019 to present

As of July 1, 2019, Cascade Energy and a team of subcontractors took over delivery of the former Internal DSM Delivery project management role (see Table 20 below). Cascade is responsible for their portion of the Utah energy savings target, forecasting and budgeting, relationship management with large energy user and community customers, custom energy analysis, project measurement and verification, quality control (QC) services, and coordination with vendor delivery program personnel.

There are three project managers that assist large commercial and community customers (kW Engineering) and three project managers that assist large industrial customers (Cascade Energy). Project managers travel throughout Utah on a regular basis to visit and assist customers. These project managers provide direct assistance to access all Wattsmart Business program offerings based on rate schedule. This approach ensures that each large customer understands and is taking advantage of the Wattsmart Business program offerings as much as they would like. Cascade is managed by a Company Program Manager. Table 31 shows the engineering firms associated with delivering products and services within this delivery channel

Table 31
Large Customer Program Delivery Staff
July 1, 2019 to Present

Implementer Role	Engineering Firm	Main Office Location
Prime	Cascade Energy	Pleasant Grove, UT
Partner	kW Engineering	Salt Lake City, UT
Partner	Solarc Energy Group	Salt Lake City, UT
Partner	The Brendle Group	Fort Collins, CO
Partner	4Sight Energy	Spokane, WA

Contracted DSM Delivery – Resource Extraction (Oil, Gas and Mining)

Implementer (Willdan) is responsible for turnkey management and delivery of Oil, Gas and Mining sector, which is identified as a unique and specific market in Utah. Willdan (prime) and ERI (sub-contractor) are responsible for this sectors portion of energy savings targets, forecasting, budgeting, customer relationship managing for Utah extraction customers. Willdan conducts energy analysis, project measurement and verification, quality control services and coordination with customer personnel.

Energy Management

Energy Management is a system of practices that creates reliable and persistent electric energy savings through improved operations, maintenance and management practices in customer facilities. Energy management can result in improved system operation, lower energy costs, reduced maintenance and repair costs and extended equipment life, and improved occupant comfort and productivity for tenants and employees.

In 2019, the Company followed up on the significant effort in 2018 to engage with municipal water and wastewater customers through the Strategic Energy Management (SEM) delivery model. These efforts are expected to yield significant additional savings in future years.

Energy Project Manager Co-Funding

The Energy Project Manager offering is a co-funded staff resource within a customer facility to identify and implement energy projects. Customers establish an annual energy savings goal that exceeds one million kWh and receive Energy Project Manager Co-funding proportionate to that goal (subject to caps).

To date, the Company has assisted dozens of customers in Utah who have participated in this offer due to their large size. Table 32 below table illustrates how Energy Project Manager's may be incented.

Table 32
Energy Project Manager Incentive Structure

Payment Structure	Payment Amount	Milestone
1 - Initial payment (optional)	1/3 of funding amount* (not to exceed $25,000)	1. Customer selects an Energy Project Manager 2. Company & Customer work together on Comprehensive Plan for electric energy savings 3. Customer signs the Energy Project Manager Offer
2 - Final payment	$0.025 per kWh of energy savings achieved, to a maximum 100 percent of approved Energy Project Manager Salary and less the initial payment	1. At the end of performance period as defined in the Energy Project Manager Offer

To summarize the Wattsmart Business structure, Table 21 shows delivery channels, targeted customer segments, provider(s), and service type.

Program Changes

Changes to the Wattsmart Business Program in 2019 were significant. Because LEDs have matured in the mainstream lighting market and are now generally standard practice, lighting incentives were overhauled to encourage behaviors that will move the market toward further adoption of new, increasingly energy efficient technologies.

Lighting controls, especially Advanced Networked Lighting Controls (ANLC), represent the next frontier of significant energy saving technologies in Utah's lighting market. In 2018, Wattsmart Business required all customers to include lighting controls in incentivized lighting projects. Unfortunately, this reduced customer participation more than anticipated.

On April 23, 2019, the Public Service Commission approved Rocky Mountain Power's request to make program adjustments and provide incentives specific to customer size classification (small, medium or large). Small and medium sized customers were allowed to receive lighting incentives for projects that do not include lighting controls. The number and diversity of lamps and fixtures eligible for midstream (point of purchase) incentives also increased.

Prior to April 23, 2019, the most frequently incentivized lighting technologies were LED wall packs (as post-purchase), TLED Type A, A/B Dual Mode, TLED Type B and TLED Type C lamps. After April 23, 2019, the most frequently incentivized lighting technologies were TLED Type A/B, Linear fixture ambient and troffer kits, LED wall packs (as midstream qualifying fixtures).

COMMUNICATIONS, OUTREACH AND EDUCATION

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

A summary of 2019 (Year 10) “Utah Demand-side Management Outreach and Communications Campaign” is included in Appendix 7.

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, 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 3.

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

Information on evaluation activities completed or in progress during 2019 is summarized in the chart below. A summary of the recommendations are provided in Appendix 6. Completed evaluation reports are available at:
https://www.pacificorp.com/environment/demand-side-management.html

Table 33
2019 Evaluation Activities

Program	Years Evaluated	Evaluator	Progress Status	Estimated Completion
Home Energy Reports	2018-2019	Cadmus	In-Process	Q3 2020
*watt*smart Business	2018-2019	Cadmus	In-Process	Q4 2020
Wattsmart Homes	2017-2018	ADM	Completed	N/A
Low Income Weatherization	2016-2017	ADM	In-Process	Q2 2020

CERTIFICATE OF SERVICE

Docket No. 20-035-27

I hereby certify that on July 16, 2020, a true and correct copy of the foregoing was served by electronic mail to the following:

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