ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

1407 W. North Temple, Suite 330
Salt Lake City, Utah 84116

February 8, 2019

VIA ELECTRONIC FILING

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

Attn: Gary Widerburg
Commission Secretary

RE: Advice No. 19-01
Proposed Changes to Schedule 140, Non-Residential Energy Efficiency Program
Docket No. 19-035-T01

Enclosed for electronic filing are the proposed tariff sheets associated with Tariff P.S.C.U. No. 50 of PacifiCorp, d.b.a. Rocky Mountain Power (the "Company"), applicable to electric service in the State of Utah. Pursuant to the requirement of Rule R746-405-2(D), the Company states that the proposed tariff sheets do not constitute a violation of state law or Commission rule. The Company respectfully requests an effective date of March 11, 2019, for these changes.

Fourteenth Revision of Sheet No. B.1		Tariff Index
Fifth Revision of Sheet No. 140.4	Schedule 140	Non-Residential Energy Efficiency
Fourth Revision of Sheet No. 140.5	Schedule 140	Non-Residential Energy Efficiency
Fourth Revision of Sheet No. 140.6	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.7	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.8	Schedule 140	Non-Residential Energy Efficiency
Seventh Revision of Sheet No. 140.9	Schedule 140	Non-Residential Energy Efficiency
Fifth Revision of Sheet No. 140.10	Schedule 140	Non-Residential Energy Efficiency
Fourth Revision of Sheet No. 140.11	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.12	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.13	Schedule 140	Non-Residential Energy Efficiency
Fourth Revision of Sheet No. 140.14	Schedule 140	Non-Residential Energy Efficiency
Fourth Revision of Sheet No. 140.15	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.16	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.17	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.18	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.19	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.20	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.21	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.22	Schedule 140	Non-Residential Energy Efficiency
Third Revision of Sheet No. 140.23	Schedule 140	Non-Residential Energy Efficiency
Sheet No. 140.24 CANCELLED	Schedule 140	Non-Residential Energy Efficiency
Sheet No. 140.25 CANCELLED	Schedule 140	Non-Residential Energy Efficiency

The purpose of this filing is to propose changes to the Non-Residential Energy Efficiency Program ("Program") administered through Electric Service Schedule No. 140, specifically to adjust customer incentives, add new measures, and other miscellaneous maintenance. These tariff changes align with targets illustrated in Figure 1 below, filed in the Demand Side Management November 1st Deferred Account and Forecast Report on November 1, 2018, in Docket No. 18-035-27. Proposed changes to the Schedule 140 tariff sheets are included as Exhibit A.

Figure 1 – 2019 Budget and Savings Forecast from Nov 1st Report

***	2019 MWH Savings Forecast	2019 Budget Forecast
*watt*smart Business	188,675	$ 39,889,609

DESCRIPTION OF CHANGES

Proposed adjustments are listed below, with further explanation provided in subsequent sections.

1. Modify the design of lighting system retrofit & non-general illuminance incentives;
2. Adjust Mid-Market lighting incentives;
3. Adjust new construction/major renovation lighting incentives;
4. Add new measure variations of Advanced Rooftop Unit controls; and
5. Miscellaneous maintenance.

MODIFICATIONS TO LIGHTING SYSTEM RETROFIT INCENTIVES

Program Overview

The intent of the proposed adjustments to lighting system retrofit incentives is to facilitate optimized participation across the full spectrum of customers (i.e. small, medium, and large). The two primary adjustments proposed to accomplish this include the following:

- A change to the incentive design; and
- Segment incentives between small, medium, and large customers

The first proposal is to shift away from a "one size fits all" incentive rate, currently based on kWh saved, to a rate based on watts reduced. The second proposal is to segment lighting incentive offerings based on customer energy consumption to better encourage adoption of energy-efficient technologies best suited to each customer size.

The current kilowatt hour based incentive has been achieving the objective of encouraging participants to design lighting retrofits for higher efficiency, however, we have seen higher participation from facilities with high hours of operation, as opposed to lower hours of operation, because hours of operation directly influence kilowatt hours saved. The shift to lighting incentives on a per-watt reduced basis is intended to more effectively encourage participation among facilities with lower hours of operation, without compromising participation levels among high-hour facilities.

The following outcomes are anticipated from this adjustment:

- The same levels of cost-effectiveness as the prior incentive portfolio.
- The same level of participation among high-hour facilities.
- The same average incentive levels for high-hour facilities. Facilities with extremely high hours of operation will see modestly decreased incentives (10% or less), while those with lower hours of operation will see an increase under the per-watt reduced structure.
- Increased participation among lower-hour facilities.
- Increased ability to meet all customer needs across the full spectrum of potential participants.
- Broader efforts from the wattsmart Business Vendor Network to market and sell to all customer sizes with facilities across the full spectrum of operating hours.
- Continued offering of wattsmart Business incentives that encourage customers to graduate to the next level of efficiency.

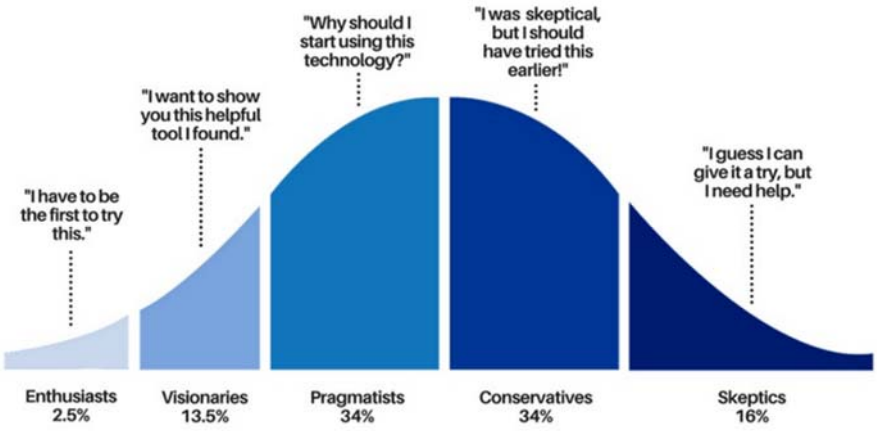
While recent participation trends show that LED technologies are being adopted, trends also show that adoption rates vary based on specific LED applications and customer segment. Below is a table representing the percentage of customers that have participated in the wattsmart Business lighting incentive offerings since 2013.

Participation Rate by Year

Segment	2013	2014	2015	2016	2017	2018*
Small	1.6%	1.8%	2.0%	1.3%	0.9%	0.4%
Medium	3.0%	4.8%	6.6%	4.9%	4.3%	2.2%
Large	3.5%	7.7%	9.5%	8.3%	8.0%	6.4%

*As of September 2018

In 2015, participation peaked for each customer segment. After incentives were reduced in 2016, participation reverted to near 2014 levels for the large customer segment, but dropped for small and medium customer segments compared to 2014 levels.

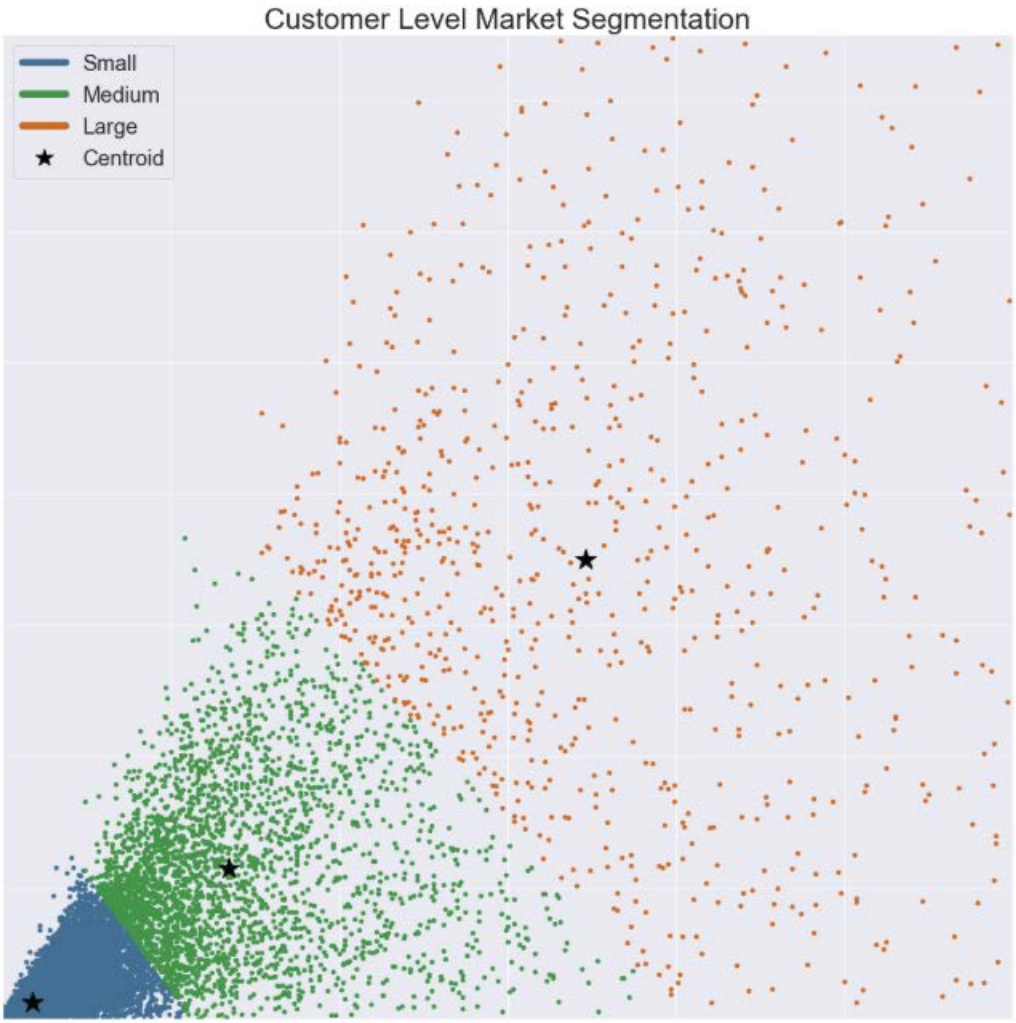


These participation rates suggest that larger customers are generally more willing to adopt LED technology than other segments and, as a result, are further to the left of the technology adoption curve illustrated above. The purpose of the proposed shift to watt-reduced incentives is to better incentivize small and medium-sized customer segments to move to the left on the technology adoption curve.

Customer Segmentation

It is proposed to segment customers by size: small, medium, and large. Customer size will be determined by aggregating customer data for each meter within each customer account, including the average total account kWh usage and the highest single meter demand (kW) across the previous 12 months. Using both kWh usage and kW demand most appropriately identifies customer usage and size characteristics. An account with multiple buildings/meters is considered as one customer, with all meter usage data included in that account calculation. Once this data is aggregated, each customer account will then be assigned to the appropriate small, medium or large segment.

Customer segment definitions are created by using statistical modeling software. This software takes into account how customer data is grouped and tests multiple scenarios to create "centroids" that most appropriately characterize each customer segment. A graphical description of the statistical model is below.



Once the most appropriate centroids are determined by the modeling software, each customer usage profile is measured against the centroids and categorized by proximity to the specified usage profile.

Outputs from the statistical model include:

- Commercial segment population
  - Small: ~32,500 Customers
  - Medium: ~2,800 Customers
  - Large: ~750 Customers
- Total participation rates (2013 through Sept 2018):
  - Small: 8%
  - Medium: 26%
  - Large: 43%
- Centroids (marked as stars)
  - Small
    - Average monthly kWh usage across all meters: ~2,400 kWh
    - Maximum kW across all meters: ~17 kW
  - Medium
    - Average monthly kWh usage across all meters: ~22,800 kWh
    - Maximum kW across all meters: ~134 kW
  - Large
    - Average monthly kWh usage across all meters: ~69,800 kWh
    - Maximum kW across all meters: ~345 kW

Segmentation calculations will be performed and updated at the beginning of each quarter. The intention is to add a function within the lighting incentive calculator tool used by qualified wattsmart Business vendors and to update the wattsmart Business vendor website to allow vendors to identify the segment to which each customer belongs.

These resources will allow an approved wattsmart Business vendor or customer to enter a meter number and identify the segment to which the customer account is assigned. This will ensure the delivery of appropriate incentive estimates to customers.

Incentives

Currently, if customers want to receive an incentive for both lamp replacements and lighting controls, they must participate in both the Mid-Market program, and the pre-approval based lighting system retrofits program. It is proposed to add the Mid-Market lighting incentives to the lighting system retrofits table, which will allow customers who are just replacing lamps to receive the Mid-Market incentive at the same time as the controls incentive on a pre-approval basis. Additionally, a large customer that replaces fixtures, but does not install controls, may still be eligible to receive an incentive if they agree to complete an alternative beneficial DSM project that the Company approves in lieu of adding controls. For example, a large customer may have minimal benefits for adding controls if their facility is a high-hour operation with lights always on. In this case, if the customer agrees to upgrade their HVAC system or install advanced rooftop controls, the Company may allow that project to fulfill the controls eligibility requirement.

Below is the restructured Schedule 140 lighting system retrofits table with the new per-watt reduced incentive levels. Table 1a has been streamlined to allow the program to quickly adapt to

market conditions and provide segmented measure incentives as needed. The incentive levels listed in Table 1a are the maximum amounts that are cost-effective under the new per-watt structure. The prescriptive measure category refers to offerings within the Mid-Market lighting table, while the non-prescriptive category refers to lighting system upgrades not offered within the Mid-Market channel.

Table 1a – Lighting System Retrofits

Measure	Category		Maximum Incentive "up to"
Lighting System Retrofit	Interior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$1.50/W Reduced
	Exterior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$0.75/W Reduced
	Controls-Only		$0.80/W Controlled
	Custom		$0.85/W Reduced

The tables below include a detailed breakout of Table 1a measure offerings and initially offered incentive amounts, segmented between small, medium, and large customers. The offered incentives will be maintained on the Company's website, and updated through the 45-day notice process as needed at or below the maximum amounts listed in Schedule 140, consistent with other program offerings.

Large Customer Segment Incentive Offer Details

Measure	Category			Eligibility Requirements	Offered Incentive
Lighting System Retrofits	Interior Lighting	New Fixture	Non-Prescriptive	Basic Controls	$0.55/W Reduced
				Advanced Controls	$1.10/W Reduced
		Retrofit Kits	Prescriptive	Basic Controls	Mid-Market + $0.20/W Controlled
				Advanced Controls	Mid-Market + $0.80/W Controlled
			Non-Prescriptive	Basic Controls	$0.35/W Reduced
				Advanced Controls	$0.90/W Reduced
		Controls-Only		Basic Controls	$0.20/W Controlled
				Advanced Controls	$0.80/W Controlled
		Custom		Basic Controls	$0.30/W Reduced
				Advanced Controls	$0.85/W Reduced
	Exterior Lighting	New Fixture	Prescriptive	Advanced Controls	Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.45/W Reduced
		Retrofit Kits	Prescriptive		Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.35/W Reduced
		Street Lighting	Prescriptive		Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.35/W Reduced
		Controls-Only			$0.40/W Controlled
		Custom			$0.30/W Reduced

Medium Customer Segment Incentive Offer Details (Lighting System Retrofits)

Measure	Category			Eligibility Requirements	Offered Incentive
Lighting System Retrofits	Interior Lighting	New Fixture	Non-Prescriptive	Without Controls	$0.40/W Reduced
				Basic Controls	$0.55/W Reduced
				Advanced Controls	$1.10/W Reduced
		Retrofit Kits	Prescriptive	Basic Controls	Mid-Market + $0.20/W Controlled
				Advanced Controls	Mid-Market + $0.80/W Controlled
			Non-Prescriptive	Basic Controls	$0.35/W Reduced
				Advanced Controls	$0.90/W Reduced
		Controls-Only		Basic Controls	$0.20/W Controlled
				Advanced Controls	$0.80/W Controlled
		Custom		Without Controls	$0.15/W Reduced
				Basic Controls	$0.30/W Reduced
				Advanced Controls	$0.85/W Reduced
	Exterior Lighting	New Fixture	Prescriptive	Without Controls	Mid-Market
				Advanced Controls	Mid-Market + $0.40/W Controlled
			Non-Prescriptive	Without Controls	$0.25/W Reduced
				Advanced Controls	$0.45/W Reduced
		Retrofit Kits	Prescriptive	Advanced Controls	Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.35/W Reduced
		Street Lighting	Prescriptive		Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.35/W Reduced
		Controls-Only			$0.40/W Controlled
		Custom		Without Controls	$0.10/W Reduced
				Advanced Controls	$0.30/W Reduced

[this space is intentionally left blank]

Small Customer Segment Incentive Offer Details (Lighting System Retrofits)

Measure	Category			Eligibility Requirements	Offered Incentive
Lighting System Retrofits	Interior Lighting	New Fixture	Non-Prescriptive	Without Controls	$0.60/W Reduced
				Basic Controls	$0.75/W Reduced
				Advanced Controls	$1.30/W Reduced
		Retrofit Kits	Prescriptive	Without Controls	Mid-Market
				Basic Controls	Mid-Market + $0.20/W Controlled
				Advanced Controls	Mid-Market + $0.80/W Controlled
			Non-Prescriptive	Without Controls	$0.30/W Reduced
				Basic Controls	$0.45/W Reduced
				Advanced Controls	$1.00/W Reduced
		Lamps	Prescriptive	Without Controls	Mid-Market
				Basic Controls	Mid-Market + $0.20/W Controlled
				Advanced Controls	Mid-Market + $0.80/W Controlled
		Controls-Only		Basic Controls	$0.20/W Controlled
				Advanced Controls	$0.80/W Controlled
		Custom		Without Controls	$0.15/W Reduced
				Basic Controls	$0.30/W Reduced
				Advanced Controls	$0.85/W Reduced
	Exterior Lighting	New Fixture	Prescriptive	Without Controls	Mid-Market
				Advanced Controls	Mid-Market + $0.40/W Controlled
			Non-Prescriptive	Without Controls	$0.35/W Reduced
				Advanced Controls	$0.55/W Reduced
		Retrofit Kits	Prescriptive	Without Controls	Mid-Market
				Advanced Controls	Mid-Market + $0.40/W Controlled
			Non-Prescriptive	Without Controls	$0.15/W Reduced
				Advanced	$0.35/W Reduced
		Street Lighting	Prescriptive	Advanced	Mid-Market + $0.40/W Controlled
			Non-Prescriptive		$0.35/W Reduced
		Controls-Only			$0.40/W Controlled
		Custom		Without Controls	$0.10/W Reduced
				Advanced Controls	$0.30/W Reduced

Non-General Illuminance Incentives

Market adoption for non-general illuminance measures has been more widely accepted in the market, with fewer participants in recent years. Currently, non-general illuminance measures require development and maintenance of deemed savings and costs through market research. With the partial market adoption and reduced participation, it will be more cost-effective to calculate site-specific savings and costs for these measures, with participation through the custom offering in Table 1a.

Accordingly, Table 1b will be removed from Schedule 140, and all non-general illuminance incentives going forward will be offered through Table 1a's custom offering, with the exception of LED exit signs, which will no longer be offered due to becoming industry standard practice.

MID-MARKET INCENTIVE ADJUSTMENTS

As mentioned above, incentives for lamp replacements are currently only available through the Mid-Market channel. In the new structure, all prescriptive/Mid-Market incentive offerings will be available through the Lighting System Retrofits program on a pre-approval basis, which will allow customers to receive incentives for both lamps and controls at the same time.

On May 17, 2018, a 45-day notice was posted to reduce certain Mid-Market offerings to $0 due to indicators of LED lighting market acceptance. At the time, market research and behavior suggested that incentives were no longer needed to move the market with these measures, and to continue offering incentives would invoke free-ridership. After notifying DSM Steering Committee members of the upcoming changes, they requested that the Company, to the extent possible, monitor distributor sales to measure the effect of the reduced incentives on market sales to verify market acceptance. Based on that monitoring and current market research, adoption of these technologies has not fully occurred, and it is proposed to re-incentivize these offerings, albeit at a reduced amount to what was previously offered prior to the 45-day notice changes. It should be noted that Type A TLED incentives will have a new eligibility requirement such that only lamps with integrated drivers will qualify, making them similar to Type C upgrades.

Additionally, it is proposed to add two new measures to the Mid-Market program: Troffer Kits and Ambient Kits. Kits are a more energy efficient solution that provide better lighting quality, less maintenance, and more electric savings than just replacing lamps. Expanding the Mid-Market offerings to include these kits will give customers more efficient options and help transition away from just lamp replacements. Troffer Kits and Ambient Kits will be added to Table 13a in Schedule 140 with maximum "up to" incentives of $30/Fixture and $20/Fixture, respectively.

The table below is a detailed breakout of the Mid-Market offerings just described, showing the re-incentivized measure offerings, the initially offered incentive amounts for the new Troffer and Ambient Kits, reduced incentives for reflector and decorative lamps, and increased incentive for pin-based lamps.

[this space is intentionally left blank]

Mid-Market Program Offering Incentive Adjustments

Measure	Category	Sub-Category	Current Incentive	Proposed Offered Incentive
LED	A-Lamp, Medium Base	-A-19 Lamp < 8 W	$0	$2/Lamp
		A-19 Lamp >= 8 W	$0	$2/Lamp
		A-21 Lamp >= 12 W	$0	$2/Lamp
	PAR Reflector Lamp	-	$0	$3/Lamp
	BR Reflector Lamp	-	$5.50/Lamp	$3/Lamp
	MR16 Reflector Lamp	-	$7/Lamp	$4/Lamp
	PLL Pin-based Lamp	-	$4/Lamp	$6/Lamp
	Decorative Lamp	-	$5/Lamp	$2.5/Lamp
	Tubular LED "TLED"	Type A with TLED Driver	$0	$3/Lamp
		Type A/B Dual Mode	$0	$3/Lamp
		Type B	$0	$3/Lamp
		Type C	$0	$3/Lamp
		Type C with Continuous Dimming	$10/Lamp	$5/Lamp
	HID Replacement Lamp	< 40w	$0	$10/Lamp
		≥ 40 W & < 80 W	$0	$25/Lamp
		≥ 80 W & < 150 W	$0	$35/Lamp
		≥ 150 W	$0	$50/Lamp
	Wallpack Fixture	>20 W and < 75 W-	$20/Fixture	$20/Fixture
		>75 W	NA	$50/Fixture
	Troffer Kit/Fixture	Retrofit Kit	NA	$18/Fixture
	Linear Ambient Kit/Fixture	Retrofit Kit	NA	$9.50/Fixture

NEW CONSTRUCTION LIGHTING INCENTIVE ADJUSTMENTS

LED lighting technology currently exceeds energy code and program lighting power density requirements are becoming an industry preferred choice for new construction and major renovation projects. To adapt to this market evolution and continue incentivizing more efficient options, the program is proposing a new incentive structure for new construction and major renovation lighting projects.

Current New Construction/Major Remodel lighting offerings are based on a Lighting Power Density calculation. Customers are incentivized to install energy efficient equipment and can qualify for incentives regardless of whether installed fixtures appear on the Design Lights Consortium Premium category list, but at the risk of reduced quality and lower efficiency options available on the market. The proposed structure will incentive interior LED fixtures that meet Design Lights Consortium Premium category requirements, and will simplify the participation process for new construction and major renovation projects. This structure change will also promote the adoption of the most efficient, highest quality LED products on the market.

Because LEDs have become industry standard for New Construction/Major Remodel exterior lighting applications, incentives will only be available for interior lighting under New Construction/Major Remodel applications, with the exception of advanced lighting control options, which will continue to be available for both interior and exterior lighting applications. Initially offered incentives will be set at the "up to" amounts listed in Schedule 140 Table 1c, also provided below.

Table 1c – New Construction/Major Renovation Lighting Incentives[1]

Measure	Category	Eligibility Requirements	Maximum Incentive "up to"	Initially Offered Incentive
Interior Lighting	Troffer	Product must be listed on qualified equipment list	$10/Fixture	$10/Fixture
	Linear Ambient		$10/Fixture	$10/Fixture
	Highbay		$20/Fixture	$20/Fixture
	Other (not listed above)		$0.50/Fixture Wattage	$0.50/Fixture Wattage
	Advanced Lighting Controls		$0.80/W Controlled	$0.80/W Controlled
Exterior Lighting	Advanced Lighting Controls		$0.40/W controlled	$0.40/W controlled

ADVANCED ROOFTOP UNIT CONTROLS

The addition of Advanced Rooftop Unit Controls ("ARC") in 2017 proved to be the most productive source of kWh savings from new offerings across the wattsmart portfolio. The technology and incentives also produced very positive customer satisfaction scores. However, the current offering is limited to only existing rooftop units that lack variable speed motor capacity—a relatively small portion of possible cost-effective applications.

Based on experience and feedback after providing ARCs as an offering since 2017, and with ARCs having a significant amount of estimated savings potential across Utah, it is proposed to expand the range of qualifying equipment beyond retrofits to also include new rooftop units, and rooftop units with existing variable speed motor capacity. The table below details the two expanded offerings and will be added to Table 3b in Schedule 140. Initially offered incentive amounts will start at the proposed maximum amount in the tariff.

Expanded Advanced Rooftop Unit Control Offerings

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Maximum Incentive "up to"
Advanced Rooftop Unit Control (New RTU)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$1,400
	> 10 tons and ≤ 15 tons			$2,000
	> 15 tons and ≤ 20 tons			$2,800
	> 20 tons			$3,200
Advanced Rooftop Unit Control (DCV Only)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include digital, integrated economizer control with either an existing supply fan VFD or an existing multi-	$500
	> 10 tons and ≤ 15 tons			$600
	> 15 tons and ≤ 20 tons			$700
	> 20 tons			$800

[1] With the removal of the current Table 1b from Schedule 140 (non-general illuminance), the current Table 1c (New construction/major renovation) will be renamed to Table 1b.

Offering incentives for a more diverse range of existing equipment configurations will increase the uptake of this offering and, in some cases, allow customers to consolidate operation of all rooftop units on a building or campus into a unified, more effective control system.

MISCELLANEOUS MAINTAINENCE

The program is continuously reviewing measures to ensure that assumptions, incentive levels, eligibility, and savings are aligned with current measure research and market conditions. Accordingly, several measures within Schedule 140 are being updated, as specified below.

- Schedule 140 – Table 3a
  - Variable Refrigerant Flow (VRF) Heat Pump – The maximum incentive will increase to from $75/ton to $150/ton, and the offered incentive will be $125/ton.

- Schedule 140 – Table 5
  - Electric Steam Cooker – The Tier 1 incentive has been removed. The Tier 2 offering remains unchanged.
  - Electric Insulated Holding Cabinet – The maximum and offered incentive will increase from $400/unit to $700/unit.
  - Electric Convention – The maximum and offered incentive will decrease from $350 to $200.
  - Electric Commercial Fryer – All offerings for this measure have been removed due to not being cost-effective.

- Schedule 140 – Table 7
  - Commercial Clothes Washer – Expanded eligibility requirements to allow units operated with electric clothes dryers to also be eligible.

Due to the proposed changes described in this Advice Letter, Schedule 140 has been streamlined and more condensed. Accordingly, Sheets 140.24 and 140.25 have been cancelled, with the content of those sheets shifting to lower numbered sheets. Additionally, various formatting has occurred on several sheets with no substantive content changes, other than what has been discussed above.

STAKEHOLDER FEEDBACK

On October 30, 2018, the Company met with the DSM Steering Committee to discuss known program changes proposed in this filing. On January 31, 2019, a draft advice letter for these changes was shared with Steering Committee members requesting initial feedback and concerns prior to submitting. Some clarifying questions were asked and answered with Steering Committee members, but no pending or anticipated disputes in need of resolution were raised with the Company prior to this filing.

COST-EFFECTIVENESS

The cost-effective analysis for the wattsmart Business portfolio is attached hereto as Exhibit B, and was based on the maximum "up to" incentive levels. Table 5 below, pulled from Exhibit B, presents the expected cost-effectiveness of the wattsmart Business portfolio for 2019 assuming the proposed changes in this filing. Additional details and inputs are included in Exhibit B. Sensitivity analyses for the wattsmart Business portfolio are also included as Exhibits C and D. The wattsmart Business portfolio is expected to remain cost-effective from the Utility Cost Test perspective under all scenarios.

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results - PY2019 (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0435	$44,240,869	$52,897,563	$8,656,694	1.20
Total Resource Cost Test (TRC) No Adder	$0.0435	$44,240,869	$48,088,694	$3,847,825	1.09
Utility Cost Test (UCT)	$0.0264	$26,858,966	$48,088,694	$21,229,728	1.79
Rate Impact Test (RIM)		$116,398,093	$48,088,694	-$68,309,399	0.41
Participant Cost Test (PCT)		$44,882,386	$130,863,024	$85,980,639	2.92
Lifecycle Revenue Impacts ($/kWh)					$0.0000161492
Discounted Participant Payback (years)					2.70

It is respectfully requested that all formal correspondence and staff requests regarding this matter be addressed to:

By E-mail (preferred): datarequest@pacificorp.com
michael.snow@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah Blvd., Suite 2000
Portland, OR 97232

Informal inquiries regarding this matter may be directed to me at (801) 220-4214.

Sincerely,

Michael S. Snow
Manager, DSM Regulatory Affairs

Enclosures
cc: Division of Public Utilities
Office of Consumer Services

Exhibit A

Proposed Tariff Sheets

ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

~~Thirteenth~~ Fourteenth Revision of Sheet No. B.1
P.S.C.U. No. 50 Canceling ~~Twelfth~~ Thirteenth Revision of Sheet No. B.1

ELECTRIC SERVICE SCHEDULES
STATE OF UTAH

Schedule No.		Sheet No.
80	Summary of Effective Rate Adjustments	80
91	Surcharge To Fund Low Income Residential Lifeline Program	91
92	Low Income Residential Lifeline Program Surcharge Refund Credit	92
94	Energy Balancing Account (EBA) Pilot Program	94.1- 94.10
98	REC Revenue Adjustment	98
105	Irrigation Load Control Program	105.1 - 105.2
107	Solar Incentive Program	107.1 - 107.6
111	Residential Energy Efficiency	111.1 - 111.7
114	Air Conditioner Direct Load Control Program (Cool Keeper Program)	114.1 - 114.5
118	Low Income Weatherization	118.1 - 118.6
120	Plug-In Electric Vehicle Incentive Pilot Program	120.1 - 120.3
121	Plug-In Electric Vehicle Load Research Study Program – Temporary	121.1 - 121.2
135	Net Metering Service	135.1 - 135.6
136	Transition Program for Customer Generators	136.1 - 136.6
140	Non-Residential Energy Efficiency	140.1 - 140.~~25~~23
193	Demand Side Management (DSM) Cost Adjustment	193.1 - 193.2
194	Demand Side Management (DSM) Credit	194.1
196	Sustainable Transportation and Energy Plan (STEP) Cost Adjustment Pilot Program	196.1 - 196.2
197	Federal Tax Act Adjustment	197.1
300	Regulation Charges	300.1 - 300.4

Schedule Numbers not listed are not currently used.
*These Schedules are not available to new customers or premises.

(continued)

ROCKY MOUNTAIN POWER

ELECTRIC SERVICE SCHEDULE NO. 140

STATE OF UTAH

Non-Residential Energy Efficiency

PURPOSE: This Schedule is intended to maximize the efficient utilization of electricity for new and existing non-residential loads through the installation of energy efficiency measures and energy management protocols.

APPLICABLE: To service under the Company's General Service Schedules 6, 6A, 6B, 8, 9, 9A, 10, 12, 15, 21, 23, and Supplementary Service under Schedule 31. This Schedule is applicable to new and existing non-residential facilities and dairy barns served on the company's residential rate schedules. This Schedule is not applicable to offset customer generation.

CUSTOMER PARTICIPATION: Customer participation is voluntary and is initiated by following the participation procedures on the Utah energy efficiency section of the Company website. The Company shall have the right to qualify participants, at its discretion, based on criteria the Company considers necessary to ensure the effective operation of the measures and utility system. Criteria may include, but will not be limited to cost effectiveness. The Company may limit participation levels, as approved by the Commission. Any Commission-approved limits will be described on the Company's website. In the event that there is a participation dispute that is not resolved by the Company the customer may elect to follow the process outlined at http://www.psc.state.ut.us/complaints/index.html

Eligible facilities of similar size, operations and ability to participate will be treated in a fair and consistent manner in respect to participation under this schedule.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

INCENTIVES:[1]

Category	Incentive "up to"	Percent Project Cost Cap	1-Year Simple Payback Cap for Projects[2]	Other Limitations
Prescriptive Incentives *	See Tables 1a-11	See Tables 1a-11	See Tables 1a-11	See Tables 1a-11
Mid-market Incentives	Determined by Company with not-to-exceed amounts as shown in Table 13	N/A	No	Incentives available at the point of purchase through approved distributors/retailers or via a post-purchase customer application process
HVAC Check-up Incentives	Determined by Company with not-to-exceed amounts as shown in Table 14	N/A	No	Qualifying equipment must be installed by an approved contractor/vendor.
Custom Non-Lighting Incentives for qualifying measures not on the prescriptive list.[3]	$0.15 per annual kWh savings	70%	Yes	N/A
Energy Management	$0.02 per kWh annual savings	N/A	No	N/A
Energy Project Manager Co-Funding	$0.025 per kWh annual savings	100% of salary and eligible overhead	No	Minimum 1,000,000 kWh through qualified measures
Bill Credit[4]	80% of eligible project costs	80%	No	Customers with minimum 1 MW peak or annual usage of 5,000,000 kWh**

*Incentives for measures contained in Tables 1a-11 are restricted to the amounts shown in Tables 1a-11 or the appropriate bill credit amount.
**Customers may aggregate accounts to achieve minimum requirements.

[1] The customer or Owner may receive only one financial incentive from the Company per measure. Financial incentives include energy efficiency incentive payments, bill credits, and energy management payments. Energy Project Manager Co-Funding is available in addition to the project incentives.
[2] The 1 year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.
[3] Project Cost and 1-Year Simple Payback Caps do not apply to New Construction and Major Renovation projects that are subject to state energy code.
[4] To qualify for the bill credit option, a project must have a projected payback period of between 1 and 8 years. The Company may accept a project with a projected payback period in excess of eight years if project benefits satisfy the Commission's approved cost-effectiveness test. New Construction, lighting retrofits and Pre-payment projects are not eligible for bill credit.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

QUALIFYING MEASURE: Qualifying measures are any measures which, when installed in an eligible facility, result in verifiable electric energy efficiency improvement compared to a baseline as determined by the Company. The baseline will be determined with reference to existing equipment, applicable state or federal energy or building codes, industry standard practice and other relevant factors.

QUALIFYING ENERGY MANAGEMENT: Operational improvements which, when implemented in an eligible facility, result in electric energy savings compared to current operations as determined by the Company.

MINIMUM EQUIPMENT EFFICIENCY: Retrofit Energy Efficiency Projects must meet minimum equipment efficiency levels and equipment eligibility requirements in the Tables below to be eligible for an Incentive or monthly Bill Credit available under the Schedule.

PRIOR ENERGY SERVICE PAYMENT PROGRAM PARTICIPATION REQUIREMENTS: This tariff does not affect Energy Service Charges currently outstanding. All obligations including those pursuant to an executed Energy Services Agreement shall remain in effect until the Energy Efficiency Payment with interest is repaid in full.

GENERAL RULES AND PROVISIONS:

1. Service under this Schedule will be in accordance with the terms of the Electric Service Agreement between the Customer and the Company. The Company may establish specifications regarding electric efficiency or energy management measures to be affected under this schedule, and may conduct inspections and/or verification to insure that such specifications are met.
2. Detailed program descriptions, Frequently Asked Questions, Qualifying Equipment or Services, incentive amounts, application forms and participation procedures are accessible through the program's website at www.wattsmart.com.
3. "Up to" amounts represent the minimum/maximum range approved by the Commission. Actual offered incentives within their respective minimum/maximum ranges are posted on the program's website. "Up to" amounts may change within their minimum/maximum ranges with a minimum 45 days' notice, which will be prominently displayed on the program website and will be communicated to participating retailers, distributors, and Trade Allies.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 1a - Lighting System Retrofits

~~Measure~~	~~Category~~	~~Eligibility Requirements~~		~~Maximum Incentive "up to"~~
~~Lighting System Retrofits~~	~~Interior Lighting~~	~~Full Fixture Replacement~~	~~Advanced Controls~~	~~$0.20/kWh~~
			~~Basic Controls~~	
			~~Without Controls~~	
		~~Fixture Retrofit Kits~~	~~With Controls~~	
			~~Without Controls~~	
		~~Controls-only Retrofit~~	~~Upgrade to Advanced Controls~~	
			~~Upgrade to Basic Controls~~	
	~~Exterior Lighting~~	~~Full Fixture Replacement~~	~~Advanced Dimming Controls~~	~~$0.15/kWh~~
			~~Without Controls~~	
		~~Fixture Retrofit Kits~~	~~Advanced Dimming Controls~~	
			~~Without Controls~~	
		~~Street Lighting~~	~~Advanced Dimming Controls~~	
			~~Without Controls~~	
		~~Controls-only Retrofit~~	~~Upgrade to Advanced Dimming Controls~~	

Measure	Category		Maximum Incentive "up to"
Lighting System Retrofit	Interior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$1.50/W Reduced
	Exterior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$0.75/W Reduced
	Controls-Only		$0.80/W Controlled
	Custom		$0.85/W Reduced

Notes for Table 1a:

1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by the Company.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project costs are subject to Company approval.
3. Eligible retrofit lighting equipment is defined in qualified equipment lists posted on the Utah energy efficiency program section of the Company's website.
~~3.~~4. The prescriptive category refers to offerings within the Mid-Market lighting table. The non-prescriptive category refers to lighting system upgrades not offered within the Mid-Market lighting table.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

~~Table 1b – Non-General Illuminance Incentives (Retrofit Only)~~

~~Measure~~	~~Category~~	~~Eligibility Requirements~~	~~Incentive "up to"~~
~~Non-General Illuminance~~	~~Exit Sign~~	~~LED or photoluminescent replacing incandescent or fluorescent~~	~~$15/Sign~~
	~~LED Message Center Sign~~	~~LED replacing existing incandescent signage~~	~~$5/Lamp~~
	~~LED Channel Letter Sign~~	~~LED replacing existing neon or fluorescent signage~~	~~$5/Linear Foot~~
	~~LED Marquee/Cabinet Sign~~	~~LED replacing existing fluorescent signage~~	~~$5/Linear Foot~~
	~~LED Case Lighting – Refrigerated Case~~	~~LED replacing fluorescent lamp in refrigerated cases. LED must be listed on qualified equipment list.~~	~~$10/linear foot~~
	~~LED Case Lighting – Freezer Case~~		~~$10/linear foot~~
	~~Refrigerated Case Occupancy Sensor~~	~~Installed in existing refrigerated case with LED lighting~~	~~$1/linear foot~~
~~Custom~~	~~Custom~~	~~Not listed above~~	~~$0.15/kWh annual energy savings~~

~~**Notes for Table 1b:**~~
~~1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by the Company.~~
~~2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project Costs are subject to Company approval.~~
~~3. Qualified equipment lists for measures referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.~~

~~LED – Light-emitting Diode~~

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 1~~e~~b – New Construction/Major Renovation Lighting Incentives

~~Measure~~	~~Category~~	~~Eligibility Requirements~~	~~Incentive "up to"~~
~~Interior Lighting*~~	~~Lighting and Lighting Control~~	~~1. The total connected interior lighting power for New Construction/Major Renovation projects must be at least 10% lower than the interior lighting power allowance calculated under the applicable version of the state energy code. For New Construction/Major Renovation projects not included in the state energy code, the total connected lighting power must be at least 10% lower than common practice as determined by the Company.~~ ~~2. Energy savings is subject to approval by the Company~~	~~$0.08/kWh annual energy savings~~
~~Exterior Lighting~~	~~LED Outdoor Pole/Roadway, decorative~~	~~<75W; LED must be listed on qualified equipment list~~	~~$75/Fixture~~
	~~LED Outdoor Pole/Roadway~~	~~≤200W; LED must be listed on qualified equipment list~~	~~$100/fixture~~
		~~>200W; LED must be listed on qualified equipment list~~	~~$400/fixture~~
	~~LED Canopy/Soffit~~	~~LED must be listed on qualified equipment list~~	~~$125/fixture~~
	~~LED Wall Packs~~	~~<50 Watts; LED must be listed on qualified equipment list~~	~~$50/fixture~~
		~~≥50 Watts; LED must be listed on qualified equipment list~~	~~$75/fixture~~
	~~LED Flood Lights~~	~~<100 Watts; LED must be listed on qualified equipment list~~	~~$75/fixture~~
		~~≥100 Watts; LED must be listed on qualified equipment list~~	~~$150/fixture~~
	~~Custom~~	~~Not listed above~~	~~$0.08/kWh annual energy savings~~
	~~Exterior Dimming Control~~	~~Must control LED technology in an exterior lighting application. Control must be integral to LED fixture or fixture mounted and reduce fixture power by 75% or more for a minimum of 6 hrs per night or when the space has been unoccupied for 15 minutes or less. e~~	~~$0.34/Watt controlled**~~

Measure	Category	Eligibility Requirements	Incentive "up to"
Interior Lighting	Troffer	Product must meet program requirements and be listed on qualified equipment list.	$10/Fixture
	Linear Ambient		$10/Fixture
	Highbay		$20/Fixture
	Other (not listed above)		$0.50/Fixture Wattage
	Advanced Lighting		$0.80/W controlled**

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

	Controls		
Exterior Lighting	Advanced Lighting Controls		$0.40/W controlled**

~~*Project Cost Caps of 70% and 1-Year Simple Payback Caps apply to New Construction and Major Renovation projects that are not subject to state energy code. The 1 year simple payback cap means incentives will not be available to reduce the simple payback of a project below one year. If required, individual measure incentives will be adjusted downward pro-rata so the project has a simple payback after incentives of one year.~~

** ~~Exterior l~~Lighting controls required by the applicable version of the state energy code are not eligible for incentives.

~~LED - Light-Emitting Diode~~

Table 2 - Motor Incentives

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Incentive "up to"
Electronically Commutated Motor (ECM)	≤ 1 horsepower	Refrigeration application	--	$0.50/watt
		HVAC application	--	$50/horsepower
Variable-Frequency Drives (HVAC fans and pumps)	≤ 100 horsepower	HVAC fans and pumps	See Note 2	$65/horsepower
Green Motor Rewinds	≥ 15 and ≤ 5,000 horsepower	--	Must meet GMPG Standards	$1/horsepower Refer to Note 3

Notes for Table 2:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Throttling or bypass devices, such as inlet vanes, bypass dampers, three-way valves, or throttling valves must be removed or permanently disabled to qualify for HVAC fan or pump VFD incentives. VFDs required by or used to comply with the applicable version of the energy code are not eligible for incentives. Savings will only be realized for installations where a variable load is present.
3. For Green Motor Rewinds, the participating electric motor service center is paid $2/horsepower for eligible Green Motor Rewinds. A minimum of $1/horsepower is paid by the service center to the Customer as a credit on the motor rewind invoice. The balance is retained by the service center. Green Motor Rewind motors that are installed or placed in inventory may qualify for an incentive.

ECM = Electronically Commutated Motor
GMPG = Green Motors Practices Group
HVAC = Heating, Ventilation and Air Conditioning
NEMA = National Electrical Manufacturer's Association
VFD = Variable Frequency Drive

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3a – HVAC Incentives

Equipment Type	Category	Minimum Efficiency Requirements	Customer Incentive "up to"
Unitary Commercial Air Conditioners	Air-Cooled – Split Systems Only	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Water Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Evaporatively Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
Packaged Terminal Air Conditioners (PTAC)	≤ 8,000 Btu/hr	12.2 EER	$25/ton
	> 8,000 Btu/hr and < 10,500 Btu/hr	11.9 EER	
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	10.7 EER	
	> 13,500 Btu/hr	9.9 EER	
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	≤ 8,000 Btu/hr	12.2 EER and 3.4 COP	$50/ton
	> 8,000 Btu/hr and < 10,500 Btu/hr	11.5 EER and 3.3 COP	
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	10.7 EER and 3.1 COP	
	> 13,500 Btu/hr	9.8 EER and 3.0 COP	
Unitary Commercial Heat Pumps (See Note 3)	Air-Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Water Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Ground Source	As defined in ENERGY STAR Program Requirements for Geothermal Heat Pumps	$50/ton
	Groundwater Source	As defined in ENERGY STAR Program Requirements for Geothermal Heat Pumps	$50/ton
Heat Pump Loop (See Note 7)	Ground Source, Closed Loop	--	$25/ton
	Groundwater Source, Open Loop	--	$25/ton
VRF Heat Pumps	Air Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$~~75~~150/ton
	Water Cooled		$~~75~~150/ton

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3a – HVAC Incentives (Continued)

Notes for table 3a - HVAC equipment incentive table

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for the listed incentive. Equipment must meet all listed efficiency requirements to qualify for the listed incentives.
2. PTHPs can replace electric resistive heating, which must be removed.
3. Incentives for heat pumps are available per ton of cooling capacity ONLY. No incentives are paid per ton of heating capacity. Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
4. Equipment size categories and capacities are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units <65,000 Btu/hr, AHRI Standard 340/360 for units ≥65,000 Btu/hr, AHRI Standard 310/380 for PTAC and PTHP units, and AHRI Standard 1230 for VRF systems.
5. Ground and Water Source Heat Pumps must meet or exceed listed efficiency requirements when rated in accordance with ISO-13256-1 to qualify for the listed incentive.
6. Efficiency requirements align with the Unitary Air-Conditioning and Heat Pump Specification maintained by the Consortium for Energy Efficiency for equipment with heating sections other than electric resistance. CEE minimum efficiency requirements are listed on the Company website.

AHRI = Air-Conditioning, Heating, and Refrigeration Institute
CEE = Consortium for Energy Efficiency
COP = Coefficient of Performance
EER = Energy Efficiency Ratio
HSPF = Heating Seasonal Performance Factor
HVAC = Heating, Ventilation and Air-Conditioning
IEER = Integrated Energy Efficiency Ratio
IPLV = Integrated Part Load Value
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump
SEER = Seasonal Energy Efficiency Ratio
VFR = Variable Refrigerant Flow

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b –Other HVAC Incentives

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Incentive "up to"
Evaporative Cooling	All sizes	Direct or Indirect		$0.06/ CFM
Indirect-Direct Evaporative Cooling (IDEC)	All sizes	--	Applicable system components must exceed minimum efficiencies required by energy code	$0.15/kWh annual energy savings See Note 2
Chillers	All except chillers intended for backup service only	Serving primarily occupant comfort cooling loads (no more than 20% for process cooling loads)	Must exceed minimum efficiencies required by energy code	$0.15/kWh annual energy savings See Note 3
365/366 day Programmable or Occupancy-based Thermostat	All sizes in portable classrooms with mechanical cooling	Must be installed in portable classroom unoccupied during summer months	365/366 day thermostatic or occupancy based setback capability	$150/thermostat
Occupancy Based PTHP/PTAC control	All sizes with no prior occupancy based control		See Note 4	$50/controller
Evaporative Pre-cooler (Retrofit Only)		For single air-cooled packaged rooftop or matched split system condensers only	Minimum performance efficiency of 75%. Must have enthalpy controls to control pre-cooler operation. Water supply must have chemical or mechanical water treatment.	$75/ton of attached cooling capacity (See Note 5)
Advanced Rooftop Unit Control (Retrofit)	≥ 5 tons and ≤ 10 tons	Must be installed on existing unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity with constant speed supply fans.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$2,000
	> 10 tons and ≤ 15 tons			$2,800
	> 15 tons and ≤ 20 tons			$4,000
	> 20 tons			$4,500
Advanced Rooftop Unit Control (New RTU)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$1,400
	> 10 tons and ≤ 15 tons			$2,000
	> 15 tons and ≤ 20 tons			$2,800
	> 20 tons			$3,200
Advanced Rooftop Unit Control (DCV Only)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include digital, integrated economizer control with either an existing supply fan VFD or an existing multi-speed supply fan motor and controller that meets ventilation and space conditioning needs	$500
	> 10 tons and ≤ 15 tons			$600
	> 15 tons and ≤ 20 tons			$700
	> 20 tons			$800

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b –Other HVAC Incentives (Continued)

Notes for Table 3b

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Incentives paid at $0.15/kWh annual energy savings. IDEC energy savings subject to approval by the Company.
3. Incentives paid at $0.15/kWh annual energy savings. Chiller energy savings subject to approval by the Company.
4. Controller units must include an occupancy based control and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.
5. Incentives for Evaporative Pre-coolers are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year.
6. Energy Efficiency Project Costs are subject to Rocky Mountain Power approval.

CFM = Cubic Feet per Minute
HVAC = Heating, Ventilating and Air Conditioning
IDEC = Indirect Direct Evaporative Cooling
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump

Table 4a – Building Envelope Incentives (Retrofit)

Equipment Type	Category	Minimum Efficiency Requirement	Incentive "up to"
Cool Roof	--	ENERGY STAR Qualified	$0.10/square foot
Roof/Attic Insulation	--	Minimum increment of R-10 insulation added	$0.05/square foot
Wall Insulation	--	Minimum increment of R-10 insulation added	$0.07/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.35/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.35/square foot
Window Film	Existing Windows	See Note 5	$0.15/kWh annual energy savings (See Note 5)

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 4a – Building Envelope Incentives (Retrofit) (Continued)

Notes for Table 4a:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive the incentives in the above table.
4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
5. Incentives for window film are calculated based on film specifications and window orientation at $0.15/kWh annual energy savings. Energy savings are subject to approval by the Company.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient

Table 4b – Building Envelope Incentives (New Construction/Major Renovation)

Equipment Type	Category	Minimum Efficiency Requirement	Incentive "up to"
Cool Roof	--	ENERGY STAR Qualified	$0.10/square foot
Roof/Attic Insulation	--	Minimum increment of R-5 insulation above code (See Note 5)	$0.05/square foot
Wall Insulation	--	Minimum increment of R-3.7 continuous insulation above code (See Note 5)	$0.07/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.35/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.35/square foot

Notes for Table 4b:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive the incentives in the above table.
4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
5. Compliance with the minimum efficiency requirements of Roof/Attic and Wall Insulation measures may be demonstrated with equivalent U-factors and is subject to approval by the Company.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

~~Table 4b – Building Envelope Incentives (New Construction/Major Renovation) (Continued)~~

Table 5 – Food Service Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive/Unit "up to"
Residential Dishwasher	Used in a Business	See Home Energy Savings Program	See Note 2
Commercial Dishwasher (High Temperature models w/ electric boosters only)	Undercounter	ENERGY STAR Qualified	$100
	Stationary Rack, Single Tank, Door Type		$400
	Single Tank Conveyor		$1,000
	Multiple Tank Conveyor		$500
Electric Insulated Holding Cabinet	V ≥ 28 (Full Size	ENERGY STAR Qualified	$~~400~~700
	13 ≤ V < 28 (3/4 Size		$300
	V < 13 (1/2 Size)		$200
Electric Steam Cooker	~~3-, 4-, 5- and 6-pan or larger sizes - Tier 1~~	~~ENERGY STAR Qualified~~	~~$130~~
	3-, 4-, 5- and 6-pan or larger sizes - Tier 2	ENERGY STAR Qualified w/ Heavy Load Efficiency ≥ 68%	$300
Electric Convection Oven	~~–~~Full Size	ENERGY STAR Qualified	$~~350~~200
Electric Griddle		ENERGY STAR Tier 2 Qualified	$150
Electric Combination Oven	6-15 pans	ENERGY STAR Qualified	$1,000
	16-20 pans	ENERGY STAR Qualified	$275
~~Electric Commercial Fryer~~	~~Tier 1~~	~~ENERGY STAR Qualified~~	~~$200~~
	~~Tier 2~~	~~ENERGY STAR Qualified w/Cooking Efficiency ≥ 85%, Idle Energy Rate ≤ 860 Watts~~	~~$300~~
Ice Machines (Air-Cooled Only)	Tier 1: Harvest Rate < 500 lbs/day	ENERGY STAR Qualified	$125
	Tier 1: Harvest Rate ≥ 500 lbs/day		$150
	Tier 2: Harvest Rate < 500 lbs/day	CEE Tier 2 Qualified	$250
	Tier 2: Harvest Rate ≥ 500 lbs/day		$400
Residential Refrigerator	Used in a Business	See Home Energy Savings Program	See Note 2

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 5 – Food Service Equipment Incentives (Continued)

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive/Unit "up to"
Commercial Transparent Door Refrigerator	0 < V < 15	ENERGY STAR Qualified	$25
	15 ≤ V < 30		$50
	30 ≤ V < 50		$75
	50 ≤ V		$125
	Chest Configuration		$50
Commercial Transparent Door Freezer	0 < V < 15	ENERGY STAR Qualified	$25
	15 ≤ V < 30		$50
	30 ≤ V < 50		$75
	50 ≤ V		$100
	Chest Configuration		$100
Demand Controlled Kitchen Ventilation Exhaust Hood (Retrofit Only)	Must be installed on commercial kitchen exhaust system.	Variable speed motors must be controlled to vary fan speed depending upon kitchen demand, as indicated by connected sensors.	$0.15/kWh annual energy savings (See note 3)
Anti-Sweat Heater Controls (Retrofit Only)	Low-Temp (Freezing) Cases	Controls that reduce energy consumption of anti-sweat heaters based on sensing humidity.	$20/linear foot (case length)
	Med-Temp (Refrigerated) Cases		$16/linear foot (case length)

Notes for Table 5:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Refer to Company's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.
3. Incentives are paid at $0.15/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Company.

CEE = Consortium for Energy Efficiency
MDEC = Maximum Daily Energy Consumption
V = Association of Home Appliance Manufacturers (AHAM) Volume (cubic feet)

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 6 – Office Equipment Incentives

Equipment Type	Minimum Efficiency Requirements	Incentive "up to"
Smart Plug Strip	1. Incentive applies to any plug strip that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an occupancy sensor, electric load sensor, or timer. 2. Applies only to electric plug-load applications (e.g. computer monitors, desk lamps, etc.)	$15/qualifying unit

Notes for Table 6:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

Table 7 – Appliance Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive "up to"
High-Efficiency Clothes Washer	Residential (used in a business)	See Home Energy Savings Program	See Note 3
	Commercial (must have electric water heating and/or electric clothes dryer)	ENERGY STAR Qualified	$100
Heat Pump Water Heater	Residential (used in a business)	See Home Energy Savings Program	

Notes for Table 7:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Equipment must meet the efficiency rating standard that is in effect on the date of purchase.
3. Refer to Company's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8a - Irrigation Incentives – Measures for Wheel Line, ~~h~~Hand Line, or Other Portable Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
New rotating sprinkler replacing worn or leaking impact or rotating sprinkler	Leaking or malfunctioning impact or rotating sprinkler	Rotating sprinkler	1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	$2.50 each
New or rebuilt impact sprinkler replacing worn or leaking impact sprinkler	Leaking or malfunctioning impact sprinkler	New or rebuilt impact sprinkler	1. New nozzle shall be included in new or rebuilt sprinkler. Rebuilt sprinkler shall meet or exceed manufacturer's specifications. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two sprinklers per irrigated acre.	$2.25 each
New nozzle replacing worn nozzle of same design flow or less on existing sprinkler	Worn nozzle	New nozzle of same design flow or less	1. Flow rate shall not be increased. 2. All nozzles on the wheel line or hand line shall be replaced. 3. Fixed-in-place (solid set) systems not eligible. 4. Incentive limited to two nozzles per irrigated acre.	$0.50 each
New flow-control nozzle for impact sprinkler replacing existing nozzle or worn flow-control nozzle of same design flow or less	Worn nozzle	New flow control nozzle	1. Nozzle to be replaced may be fixed orifice or flow control type. 2. New flow control nozzle shall have a flow rating equal to or less than the flow rating of the existing nozzles at 40 psi. 3. All nozzles on the wheel line or hand line shall be replaced. 4. Fixed-in-place (solid set) systems not eligible. 5. Incentive limited to two nozzles per irrigated acre.	$2.75 each
New gasket replacing leaking gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	Leaking gasket	New gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	1. New gasket must replace leaking gasket. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two gaskets per irrigated acre.	$2 each
New drain replacing leaking drain	Leaking drain	New drain, including drains on pivots and linears	1. New drain must replace leaking drain. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two drains per irrigated acre.	$3 each

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8a - Irrigation Incentives – Measures for Wheel Line, hand Line, or Other Portable Systems (Retrofit Only) (Continued)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Cut and press or weld repair of leaking wheel line, hand line, or portable main line	Leak in wheel line, hand line, or portable main line	Cut and pipe press or weld repair	~~1.~~For rebuilds, invoice must show number of rebuild kits purchased and installed.	$10/repair
New or rebuilt wheel line leveler replacing leaking or malfunctioning leveler	Leaking or malfunctioning leveler	New or rebuilt leveler	1. Applies to leaking or malfunctioning levelers only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	$3 each
New or rebuilt wheel line feed hose replacing leaking wheel line feed hose	Leaking wheel line feed hose	New or rebuilt wheel line feed hose	1. Applies to leaking wheel line feed hose only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	$12 each
New Thunderbird wheel line hub replacing leaking wheel line hub	Leaking Thunderbird wheel line hub	New Thunderbird wheel line hub	New hub must replace leaking hub	$10 each

Table 8b - Irrigation Incentives – Measures for Pivots and Linear Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Pressure regulator	Worn pressure regulator	New pressure regulator of same design pressure or less	~~1.~~New regulator must be of same design pressure or less	$3 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing impact sprinkler	Impact sprinkler	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	~~1.~~New sprinkler is of same design flow or less	$3 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing worn low pressure sprinkler	Worn low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray)	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	~~1.~~New sprinkler is of same design flow or less	$1.50 each
Gooseneck as part of conversion to low pressure system		New gooseneck as part of conversion to low pressure system	Gooseneck shall be used to convert existing center pivot with sprinkler equipment mounted on top of the pivot to low pressure sprinklers with regulators on new drop tubes.	$0.50 per outlet

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8b - Irrigation Incentives – Measures for Pivots and Linear Systems (Retrofit Only) (continued)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Drop tube (3 ft minimum length)	Leaking drop tube	New drop tube (3 ft minimum length) OR add drop tube as part of conversion to low pressure system	Drop tube or hose extension shall extend below the pivot lower brace or shall be a minimum of 3 ft in length, whichever is greater.	$2 per drop tube
New center pivot base boot gasket replacing leaking base boot gasket	Leaking center pivot base boot gasket	New center pivot base boot gasket	1. Gasket shall replace leaking gasket at the pivot point of the center pivot. 2. No more than one gasket shall be claimed per pivot.	$125 each
New tower gasket replacing leaking tower gasket	Leaking tower gasket	New tower gasket	New gasket shall replace leaking tower gasket.	$4 each

Table 8c - Irrigation Incentives – Measures for Any Type of System (Retrofit or New Construction, Including Non-Agricultural Irrigation Applications)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Irrigation pump VFD		Add variable frequency drive to existing or new irrigation pump	1. Pumps serving any type of irrigation water transport or distribution system are eligible – wheel lines, hand lines, pivots, linears, fixed-in-place (solid set). 2. Both retrofit and new construction projects are eligible.	$0.15/kWh annual savings

Notes for Irrigation Incentive Tables:

1. Equipment that meets or exceeds the requirements listed above may qualify for the listed incentive.
2. Except for the pump VFD measure, incentives listed here are available only for retrofit projects where new equipment replaces existing equipment (i.e. new construction is not eligible).
3. Except for the pump VFD measure, equipment installed in fixed-in-place (solid set) systems is not eligible. Incentive is limited to two units per irrigated acre.
4. Incentives are capped at 70 percent of Energy Efficiency Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.

VFD = Variable Frequency Drive

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 9 – Farm and Dairy Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirements	Incentive "up to"
Automatic Milker Takeoff (Retrofit Only)	--	Equipment must be able to sense milk flow and remove milker when flow reaches a pre-set level. The vacuum pump serving the affected milking units must be equipped with a VFD. Incentive is available for adding automatic milker takeoffs to existing milking systems, not for takeoffs on a brand new system where there were none before. Replacement of existing automatic milker takeoffs is not eligible for this listed incentive, but may qualify for a Custom Energy Efficiency incentive.	$235 each
Agricultural Engine Block Heater Timer	--	Timer must be a UL-listed device and rated for a minimum of 15 amps continuous duty.	$10 each
High-efficiency Circulating fan (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/~~w~~W	$25/fan
	24-35" Diameter	Fan must achieve an efficiency level of 18 cfm/~~w~~W	$35/fan
	36-47" Diameter	Fans must achieve an efficiency level of 18 cfm/~~w~~W	$50/fan
	≥48" Diameter	Fans must achieve an efficiency level of 25 cfm/~~w~~W	$75/fan
Heat Recovery	--	Heat recovery unit must use heat rejected from milk cooling refrigeration system to heat water. Customer must use electricity for water heating.	$0.15/kWh annual energy savings
High-efficiency Ventilation Fan (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/~~w~~W	$45/fan
	24-35" Diameter	Fan must achieve an efficiency level of 13 cfm/~~w~~W	$75/fan
	36-47" Diameter	Fan must achieve an efficiency level of 17 cfm/~~w~~W	$125/fan
	≥48" Diameter	Fan must achieve an efficiency level of 19.5 cfm/~~w~~W	$150/fan
Milk Pre-cooler (Retrofit Only)	--	The equipment must cool milk with well-water before it reaches the bulk cooling tank. New construction not eligible.	$0.15/kWh annual energy savings

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 9 – Farm and Dairy Equipment Incentives (continued)

Equipment Type	Equipment Category	Minimum Efficiency Requirements	Incentive "up to"
Programmable Ventilation Controllers	--	The controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc.	$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)	--	VFD must vary motor speed based on target vacuum level. Incentive available for retrofit only. New construction and replacement of existing VFD not eligible.	$165/hp

Notes for Table 9:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Fan performance must be rated by an independent testing body in accordance with the appropriate ANSI/AMCA standards.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.
4. Except where noted, all equipment listed in the table is eligible for incentives in both new construction and retrofit projects.

AMCA = Air Movement and Control Association International, Inc.
ANSI = American National Standards Institute
cfm = cubic feet per minute
VFD = Variable Frequency Drive
~~w~~ W = watt

Table 10 – Compressed Air Incentives

Equipment Category	Replace	With	Limitations	Unit	Incentive "up to"
Low Pressure Drop Filter	Standard coalescing filter	Low Pressure drop filter where: 1.Pressure loss at rated flow is ≤1 psi when new and ≤3 psi at element change. 2. Particulate filtration is 100% at ≥3.0 microns and 99.98% at 0.1 to 3.0 microns, with ≤ 5ppm liquid carryover. 3. Filter is of deep-bed "mist eliminator" style, with element life ≥ 5 years. 4. Rated capacity of filter is ≤ 500 scfm.	1. Compressor system must be ≥ 25 hp and ≤ 75 hp. 2. Compressor discharge pressure setpoint must be reduced by 2 psi or more after installation of low pressure drop filter.	scfm	$2/scfm

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 10 – Compressed Air Incentives (Continued)

Equipment Category	Replace	With	Limitations	Unit	Incentive "up to"
Receiver Capacity Addition	Limited or no receiver capacity (≤ 2 gallons per scfm of trim compressor capacity)	Total receiver capacity after addition must be > 2 gallons per scfm of trim compressor capacity	1. Compressor system size ≤ 75 horsepower, not counting backup compressor(s). 2. Trim compressor must use load/unload control, not inlet modulation or on/off control. 3. Systems with VFD compressor or using variable displacement compressor as trim compressor are not eligible.	gal	$3/gal above 2 gallons per scfm
Cycling Refrigerated Dryer	Non-cycling refrigerated dryer	Cycling refrigerated dryer	1. Rated dryer capacity must be ≤ 500 scfm. 2. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 3. Refrigeration compressor must cycle off during periods of reduced demand.	scfm	$2/scfm
VFD Controlled Compressor	Fixed speed compressor	≤75 hp VFD controlled oil-injected screw compressor operating in system with total compressor capacity ≤75 hp, not counting backup compressor capacity	1. Total compressor capacity in upgraded system is ≤75 hp, not counting backup compressor. 2. Compressor must adjust speed as primary means of capacity control.		$0.15/kWh annual energy savings
Zero Loss Condensate Drain	Fixed timer drain	Zero loss condensate drain (See Note 4)	Drain is designed to function without release of compressed air into the atmosphere. Any size system is eligible there is no restriction on compressor size.	each	$100 each
Outside Air Intake	Compressor drawing intake air from compressor room	Permanent ductwork between compressor air intake and outdoors.	1. Compressor system size ≤ 75 HP. 2. Ductwork must meet manufacturer's specifications, which may include: (a) ≤ 0.25" W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold outside air conditions	hp	$6/hp
Compressed air end use reduction	Inappropriate or inefficient compressed air end uses	Functionally equivalent alternatives or isolation valves	Any size system is eligible – there is no restriction on compressor size.		$0.15/kWh annual energy savings

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 10 – Compressed Air Incentives (Continued)

Notes for Table 10:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Except for the zero loss condensate drain and compressed air end use reduction measures, eligibility for incentives is limited to compressed air systems with total compressor capacity of 75 hp or less, not including backup compressor capacity that does not normally run.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.
4. Zero loss condensate drains purchased as an integral part of another measure are eligible for the incentive shown above.

hp = horsepower
ppm = parts per million
psi = pounds per square inch
scfm = cubic feet of air per minute at standard conditions (14.5 psia, 68°F, and 0% relative humidity)
VFD = variable frequency drive

Table 11 - Incentives for Wastewater, Oil and Gas, and Other Refrigeration Energy Efficiency Measures

Equipment Type	Replace	With	Incentive "up to"
Adaptive refrigeration control	Conventional controls (defrost timeclock, space thermostat, evaporator fan control, if any, thermal expansion valve in some instances)	Adaptive refrigeration controller and, in some instances, electric expansion valve	$0.15/kWh annual energy savings
Fast acting door	Manually operated door, automatic door with long cycle time, strip curtain, or entryway with no door in refrigerated/conditioned space	Fast acting door	$0.15/kWh annual energy savings
Oil and gas pump off controller		Add pump off controller to existing oil or gas well	$1,500 per controller
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	$0.15/kWh annual energy savings

Notes for Table 11:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued
Small Business Direct Install (Retrofit only)

Incentives and participation for small business direct installations may include but not be limited to lighting, plug load, HVAC measures, and areas being canvassed. Participating customers are required to pay for up to 25% of the qualifying equipment costs.

Table 12 – Incentives for Small Business Direct Installation (Retrofit only)

Eligible Customer Rate Schedules	Eligibility Requirements	Incentive "up to"	Customer Co-pay "up to"	
			Minimum	Maximum
6	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6a	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6b	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
23		$5,000 per facility	10%	25%

Table 13a – Mid-Market Incentives -Lighting

Measure	Category	Eligibility Requirements	Incentive "up to"
LED	A-19 Lamp < 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-19 Lamp ≥ 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-21 Lamp > 12 W, Medium Base	LED must be listed on qualified equipment list	$10/Lamp
	PAR Reflector Lamp	LED must be listed on qualified equipment list	$15/Lamp
	BR Reflector Lamp	LED must be listed on qualified equipment list	$13/Lamp
	MR16 Reflector Lamp	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp < 10 W	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp > 10 W	LED must be listed on qualified equipment list	$15/Lamp
	PLL Pin-based Lamp	LED must be listed on qualified equipment list	$15/Lamp
	Decorative Lamp	LED must be listed on qualified equipment list	$10/Lamp
	Recessed Downlight Kit	LED must be listed on qualified equipment list	$15/Fixture
	T8 TLED Lamp – Type A, A/B Dual Mode	LED must be listed on qualified equipment list	$10/Lamp
	T8 TLED Lamp – Type B	LED must be listed on qualified equipment list	$15/Lamp
	T8 TLED Lamp – Type C	LED must be listed on qualified equipment list	$25/Lamp
	T5 TLED Lamp	LED must be listed on qualified equipment list	$15/Lamp
	HID Replacement Lamp < 40 W	LED must be listed on qualified equipment list	$50/Lamp
	HID Replacement Lamp ≥ 40 and < 80 W	LED must be listed on qualified equipment list	$70/Lamp
	HID Replacement Lamp ≥ 80 and < 150 W	LED must be listed on qualified equipment list	$90/Lamp
	HID Replacement Lamp ≥ 150W	LED must be listed on qualified equipment list	$110/Lamp
	Wall Pack Fixture	LED must be listed on qualified equipment list	$30/Fixture
	Wall Pack Fixture with Occupancy Sensor	LED must be listed on qualified equipment list	$75/Fixture
	Troffer Kit/Fixture	LED must be listed on qualified equipment list	$30/Fixture

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

	Linear Ambient Kit/Fixture	LED must be listed on qualified equipment list	$20/Fixture
~~Fluorescent~~	~~Reduced Wattage T8 Lamp~~	~~≤28 W CEE Replacement Lamp~~	~~$0.75/Lamp~~
	~~Reduced Wattage T5 HO Lamp~~	~~≤51 W T5HO Lamp~~	~~$1/Lamp~~

Issued by authority of Report and Order of the Public Service Commission of Utah in Advice No. ~~17-10~~19-01

FILED: ~~July 10, 2017~~February 8, 2019 **EFFECTIVE**: ~~August 10, 2017~~March 11, 2019

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 13a – Mid-Market Incentives –Lighting (Continued)

Notes for Table 13a:

1. Incentives for measures listed in the table above are available at the point of purchase through approved distributors/retailers or via a post-purchase customer application process.
2. Incentives are capped at 70 percent of qualifying equipment costs. Qualifying equipment costs are subject to Company approval. Limits to the number of items per transaction eligible for incentives may apply.
3. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.

A = Arbitrary (standard lamp shape)
PAR = Parabolic Aluminized Reflector
BR = Bulged Reflector
HID = High Intensity Discharge (e.g. high pressure sodium, metal halide)
HO = High Output
MR = Mirrored Reflector
PLC = Pin Lamp Compact Fluorescent
PLL = Pin Lamp Long Compact Fluorescent
TLED = Tubular Light Emitting Diode
W = Watt

Table 13b – Mid-Market Incentives –HVAC

Measure	Category	Eligibility Requirements	Customer/Mid-Market Incentive "up to"
Unitary Commercial Air Conditioners	Air-Cooled – Packaged Systems Only	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$100/Ton

Notes for Table 13b:

1. Incentives are capped at 70 percent of qualifying equipment cost. Qualifying equipment costs are subject to Company approval.
2. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.
3. Incentives included in the mid-market incentive tables are available through Company-approved retailers/distributors or a customer application process.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Table 14 – HVAC Check-up Incentives

Measure	Category	Eligibility Requirements	Incentive "up to"
Maintenance Agreement	3 year maintenance agreement	Maintenance agreements must include a minimum of two system checks per year (heating and cooling seasons), one condenser coil cleaning per year, and a thermostat reprogramming and calibration.	$75/ RTU
Thermostats	Programmable Thermostat	Replace existing non-programmable thermostat with programmable thermostat with a minimum of 7-day occupied/unoccupied settings.	$50/Thermostat
	Smart Thermostat	Replace non-programmable thermostat with programmable smart thermostat with a minimum of 7-day occupied/unoccupied settings. Smart thermostats must be Wi-Fi enabled, online dashboard and/or mobile device app, with occupancy sensor enabled.	
Economizer	Economizer Repair	--	$150/RTU
Refrigerant	Proper Refrigerant Charge	--	$35/Ton RTU Capacity

Notes for Table 14:

1. Incentives are capped at 70 percent of qualifying cost. Qualifying costs are subject to Company approval.

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued
Small Business Direct Install (Retrofit only)

Incentives and participation for small business direct installations may include but not be limited to lighting, plug load, HVAC measures, and areas being canvassed. Participating customers are required to pay for up to 25% of the qualifying equipment costs.

Table 12 – Incentives for Small Business Direct Installation (Retrofit only)

Eligible Customer Rate Schedules	Eligibility Requirements	Incentive "up to"	Customer Co-pay "up to"	
			Minimum	Maximum
6	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6a	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6b	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
23		$5,000 per facility	10%	25%

Table 13a – Mid-Market Incentives -Lighting

Measure	Category	Eligibility Requirements	Incentive "up to"
LED	A-19 Lamp < 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-19 Lamp ≥ 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-21 Lamp > 12 W, Medium Base	LED must be listed on qualified equipment list	$10/Lamp
	PAR Reflector Lamp	LED must be listed on qualified equipment list	$15/Lamp
	BR Reflector Lamp	LED must be listed on qualified equipment list	$13/Lamp
	MR16 Reflector Lamp	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp < 10 W	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp > 10 W	LED must be listed on qualified equipment list	$15/Lamp
	PLL Pin-based Lamp	LED must be listed on qualified equipment list	$15/Lamp
	Decorative Lamp	LED must be listed on qualified equipment list	$10/Lamp
	Recessed Downlight Kit	LED must be listed on qualified equipment list	$15/Fixture
	T8 TLED Lamp – Type A, A/B Dual Mode	LED must be listed on qualified equipment list	$10/Lamp
	T8 TLED Lamp – Type B	LED must be listed on qualified equipment list	$15/Lamp
	T8 TLED Lamp – Type C	LED must be listed on qualified equipment list	$25/Lamp
	T5 TLED Lamp	LED must be listed on qualified equipment list	$15/Lamp
	HID Replacement Lamp < 40 W	LED must be listed on qualified equipment list	$50/Lamp
	HID Replacement Lamp ≥ 40 and < 80 W	LED must be listed on qualified equipment list	$70/Lamp
	HID Replacement Lamp ≥ 80 and < 150 W	LED must be listed on qualified equipment list	$90/Lamp
	HID Replacement Lamp ≥ 150W	LED must be listed on qualified equipment list	$110/Lamp
	Wall Pack Fixture	LED must be listed on qualified equipment list	$30/Fixture
	Wall Pack Fixture with Occupancy Sensor	LED must be listed on qualified equipment list	$75/Fixture
Fluorescent	Reduced Wattage T8 Lamp	≤28 W CEE Replacement Lamp	$0.75/Lamp
	Reduced Wattage T5 HO Lamp	≤51 W T5HO Lamp	$1/Lamp

(Continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Notes for Table 13a:

1. Incentives for measures listed in the table above are available at the point of purchase through approved distributors/retailers or via a post-purchase customer application process.
2. Incentives are capped at 70 percent of qualifying equipment costs. Qualifying equipment costs are subject to Company approval.
3. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.

A = Arbitrary (standard lamp shape)
PAR = Parabolic Aluminized Reflector
BR = Bulged Reflector
HID = High Intensity Discharge (e.g. high pressure sodium, metal halide)
HO = High Output
MR = Mirrored Reflector
PLC = Pin Lamp Compact Fluorescent
PLL = Pin Lamp Long Compact Fluorescent
TLED = Tubular Light Emitting Diode
W = Watt

Table 13b – Mid-Market Incentives –HVAC

Measure	Category	Eligibility Requirements	Customer/Mid-Market Incentive "up to"
Unitary Commercial Air Conditioners	Air-Cooled – Packaged Systems Only	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$100/Ton

Notes for Table 13b:

1. Incentives are capped at 70 percent of qualifying equipment cost. Qualifying equipment costs are subject to Company approval.
2. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.
3. Incentives included in the mid-market incentive tables are available through Company-approved retailers/distributors or a customer application process.

Table 14 – HVAC Check-up Incentives

Measure	Category	Eligibility Requirements	Incentive "up to"
Maintenance Agreement	3 year maintenance agreement	Maintenance agreements must include a minimum of two system checks per year (heating and cooling seasons), one condenser coil cleaning per year, and a thermostat reprogramming and calibration.	$75/ RTU
Thermostats	Programmable Thermostat	Replace existing non-programmable thermostat with programmable thermostat with a minimum of 7-day occupied/unoccupied settings.	$50/Thermostat
	Smart Thermostat	Replace non-programmable thermostat with programmable smart thermostat with a minimum of 7-day occupied/unoccupied settings. Smart thermostats must be Wi-Fi enabled, online dashboard and/or mobile device app, with occupancy sensor enabled.	
Economizer	Economizer Repair	--	$150/RTU
Refrigerant	Proper Refrigerant Charge	--	$35/Ton RTU Capacity

Notes for Table 14:

1. Incentives are capped at 70 percent of qualifying cost. Qualifying costs are subject to Company approval.

ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

Fourteenth Revision of Sheet No. B.1
P.S.C.U. No. 50 **Canceling Thirteenth Revision of Sheet No. B.1**

ELECTRIC SERVICE SCHEDULES
STATE OF UTAH

Schedule No.		Sheet No.
80	Summary of Effective Rate Adjustments	80
91	Surcharge To Fund Low Income Residential Lifeline Program	91
92	Low Income Residential Lifeline Program Surcharge Refund Credit	92
94	Energy Balancing Account (EBA) Pilot Program	94.1- 94.10
98	REC Revenue Adjustment	98
105	Irrigation Load Control Program	105.1 - 105.2
107	Solar Incentive Program	107.1 - 107.6
111	Residential Energy Efficiency	111.1 - 111.7
114	Air Conditioner Direct Load Control Program (Cool Keeper Program)	114.1 - 114.5
118	Low Income Weatherization	118.1 - 118.6
120	Plug-In Electric Vehicle Incentive Pilot Program	120.1 - 120.3
121	Plug-In Electric Vehicle Load Research Study Program – Temporary	121.1 - 121.2
135	Net Metering Service	135.1 - 135.6
136	Transition Program for Customer Generators	136.1 - 136.6
140	Non-Residential Energy Efficiency	140.1 - 140.23
193	Demand Side Management (DSM) Cost Adjustment	193.1 - 193.2
194	Demand Side Management (DSM) Credit	194.1
196	Sustainable Transportation and Energy Plan (STEP) Cost Adjustment Pilot Program	196.1 - 196.2
197	Federal Tax Act Adjustment	197.1
300	Regulation Charges	300.1 - 300.4

Schedule Numbers not listed are not currently used.
*These Schedules are not available to new customers or premises.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 1a - Lighting System Retrofits

Measure	Category		Maximum Incentive "up to"
Lighting System Retrofit	Interior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$1.50/W Reduced
	Exterior Lighting	Prescriptive	See Mid-Market
		Non-Prescriptive	$0.75/W Reduced
	Controls-Only		$0.80/W Controlled
	Custom		$0.85/W Reduced

Notes for Table 1a:

1. To be eligible for the incentives listed, the new lighting system must use less energy than the existing lighting system replaced or the baseline lighting system as determined by the Company.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs and will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy Efficiency Project costs are subject to Company approval.
3. Eligible retrofit lighting equipment is defined in qualified equipment lists posted on the Utah energy efficiency program section of the Company's website.
4. The prescriptive category refers to offerings within the Mid-Market lighting table. The non-prescriptive category refers to lighting system upgrades not offered within the Mid-Market lighting table.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 1b – New Construction/Major Renovation Lighting Incentives

Measure	Category	Eligibility Requirements	Incentive "up to"
Interior Lighting	Troffer	Product must meet program requirements and be listed on qualified equipment list.	$10/Fixture
	Linear Ambient		$10/Fixture
	Highbay		$20/Fixture
	Other (not listed above)		$0.50/Fixture Wattage
	Advanced Lighting Controls		$0.80/W controlled**
Exterior Lighting	Advanced Lighting Controls		$0.40/W controlled**

** Lighting controls required by the applicable version of the state energy code are not eligible for incentives.

Table 2 - Motor Incentives

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Incentive "up to"
Electronically Commutated Motor (ECM)	≤ 1 horsepower	Refrigeration application	--	$0.50/watt
		HVAC application	--	$50/horsepower
Variable-Frequency Drives (HVAC fans and pumps)	≤ 100 horsepower	HVAC fans and pumps	See Note 2	$65/horsepower
Green Motor Rewinds	≥ 15 and ≤ 5,000 horsepower	--	Must meet GMPG Standards	$1/horsepower Refer to Note 3

Notes for Table 2:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Throttling or bypass devices, such as inlet vanes, bypass dampers, three-way valves, or throttling valves must be removed or permanently disabled to qualify for HVAC fan or pump VFD incentives. VFDs required by or used to comply with the applicable version of the energy code are not eligible for incentives. Savings will only be realized for installations where a variable load is present.
3. For Green Motor Rewinds, the participating electric motor service center is paid $2/horsepower for eligible Green Motor Rewinds. A minimum of $1/horsepower is paid by the service center to the Customer as a credit on the motor rewind invoice. The balance is retained by the service center. Green Motor Rewind motors that are installed or placed in inventory may qualify for an incentive.

ECM = Electronically Commutated Motor
GMPG = Green Motors Practices Group
HVAC = Heating, Ventilation and Air Conditioning
NEMA = National Electrical Manufacturer's Association
VFD = Variable Frequency Drive

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3a – HVAC Incentives

Equipment Type	Category	Minimum Efficiency Requirements	Customer Incentive "up to"
Unitary Commercial Air Conditioners	Air-Cooled – Split Systems Only	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Water Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Evaporatively Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
Packaged Terminal Air Conditioners (PTAC)	≤ 8,000 Btu/hr	12.2 EER	$25/ton
	> 8,000 Btu/hr and < 10,500 Btu/hr	11.9 EER	
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	10.7 EER	
	> 13,500 Btu/hr	9.9 EER	
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	≤ 8,000 Btu/hr	12.2 EER and 3.4 COP	$50/ton
	> 8,000 Btu/hr and < 10,500 Btu/hr	11.5 EER and 3.3 COP	
	≥ 10,500 Btu/hr and ≤ 13,500 Btu/hr	10.7 EER and 3.1 COP	
	> 13,500 Btu/hr	9.8 EER and 3.0 COP	
Unitary Commercial Heat Pumps (See Note 3)	Air-Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Water Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$75/ton
	Ground Source	As defined in ENERGY STAR Program Requirements for Geothermal Heat Pumps	$50/ton
	Groundwater Source	As defined in ENERGY STAR Program Requirements for Geothermal Heat Pumps	$50/ton
Heat Pump Loop (See Note 7)	Ground Source, Closed Loop	--	$25/ton
	Groundwater Source, Open Loop	--	$25/ton
VRF Heat Pumps	Air Cooled	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$150/ton
	Water Cooled		$150/ton

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3a – HVAC Incentives (Continued)

Notes for table 3a - HVAC equipment incentive table

1. Equipment that meets or exceeds the efficiency requirements listed for the size category in the above table may qualify for the listed incentive. Equipment must meet all listed efficiency requirements to qualify for the listed incentives.
2. PTHPs can replace electric resistive heating, which must be removed.
3. Incentives for heat pumps are available per ton of cooling capacity ONLY. No incentives are paid per ton of heating capacity. Heat Pumps must meet both the cooling mode and heating mode efficiency requirements to qualify for per ton cooling efficiency incentives.
4. Equipment size categories and capacities are specified in terms of net cooling capacity at AHRI standard conditions as determined by AHRI Standard 210/240 for units <65,000 Btu/hr, AHRI Standard 340/360 for units ≥65,000 Btu/hr, AHRI Standard 310/380 for PTAC and PTHP units, and AHRI Standard 1230 for VRF systems.
5. Ground and Water Source Heat Pumps must meet or exceed listed efficiency requirements when rated in accordance with ISO-13256-1 to qualify for the listed incentive.
6. Efficiency requirements align with the Unitary Air-Conditioning and Heat Pump Specification maintained by the Consortium for Energy Efficiency for equipment with heating sections other than electric resistance. CEE minimum efficiency requirements are listed on the Company website.

AHRI = Air-Conditioning, Heating, and Refrigeration Institute
CEE = Consortium for Energy Efficiency
COP = Coefficient of Performance
EER = Energy Efficiency Ratio
HSPF = Heating Seasonal Performance Factor
HVAC = Heating, Ventilation and Air-Conditioning
IEER = Integrated Energy Efficiency Ratio
IPLV = Integrated Part Load Value
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump
SEER = Seasonal Energy Efficiency Ratio
VFR = Variable Refrigerant Flow

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b –Other HVAC Incentives

Equipment Type	Size Category	Sub-Category	Minimum Efficiency Requirement	Incentive "up to"
Evaporative Cooling	All sizes	Direct or Indirect		$0.06/ CFM
Indirect-Direct Evaporative Cooling (IDEC)	All sizes	--	Applicable system components must exceed minimum efficiencies required by energy code	$0.15/kWh annual energy savings See Note 2
Chillers	All except chillers intended for backup service only	Serving primarily occupant comfort cooling loads (no more than 20% for process cooling loads)	Must exceed minimum efficiencies required by energy code	$0.15/kWh annual energy savings See Note 3
365/366 day Programmable or Occupancy-based Thermostat	All sizes in portable classrooms with mechanical cooling	Must be installed in portable classroom unoccupied during summer months	365/366 day thermostatic or occupancy based setback capability	$150/thermostat
Occupancy Based PTHP/PTAC control	All sizes with no prior occupancy based control		See Note 4	$50/controller
Evaporative Pre-cooler (Retrofit Only)		For single air-cooled packaged rooftop or matched split system condensers only	Minimum performance efficiency of 75%. Must have enthalpy controls to control pre-cooler operation. Water supply must have chemical or mechanical water treatment.	$75/ton of attached cooling capacity (See Note 5)
Advanced Rooftop Unit Control (Retrofit)	≥ 5 tons and ≤ 10 tons	Must be installed on existing unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity with constant speed supply fans.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$2,000
	> 10 tons and ≤ 15 tons			$2,800
	> 15 tons and ≤ 20 tons			$4,000
	> 20 tons			$4,500
Advanced Rooftop Unit Control (New RTU)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include: - Either a supply fan VFD or multi-speed supply fan motor with controller that meets ventilation and space conditioning needs - Digital, integrated economizer control	$1,400
	> 10 tons and ≤ 15 tons			$2,000
	> 15 tons and ≤ 20 tons			$2,800
	> 20 tons			$3,200
Advanced Rooftop Unit Control (DCV Only)	≥ 5 tons and ≤ 10 tons	Must be installed unitary packaged rooftop units (no split-systems), ≥ 5 tons nominal cooling capacity.	Controls must include digital, integrated economizer control with either an existing supply fan VFD or an existing multi-speed supply fan motor and controller that meets ventilation and space conditioning needs	$500
	> 10 tons and ≤ 15 tons			$600
	> 15 tons and ≤ 20 tons			$700
	> 20 tons			$800

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b –Other HVAC Incentives (Continued)

Notes for Table 3b

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Incentives paid at $0.15/kWh annual energy savings. IDEC energy savings subject to approval by the Company.
3. Incentives paid at $0.15/kWh annual energy savings. Chiller energy savings subject to approval by the Company.
4. Controller units must include an occupancy based control and include the capability to set back the zone temperature during extended unoccupied periods and set up the temperature once the zone is occupied.
5. Incentives for Evaporative Pre-coolers are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year.
6. Energy Efficiency Project Costs are subject to Rocky Mountain Power approval.

CFM = Cubic Feet per Minute
HVAC = Heating, Ventilating and Air Conditioning
IDEC = Indirect Direct Evaporative Cooling
PTAC = Packaged Terminal Air Conditioner
PTHP = Packaged Terminal Heat Pump

Table 4a – Building Envelope Incentives (Retrofit)

Equipment Type	Category	Minimum Efficiency Requirement	Incentive "up to"
Cool Roof	--	ENERGY STAR Qualified	$0.10/square foot
Roof/Attic Insulation	--	Minimum increment of R-10 insulation added	$0.05/square foot
Wall Insulation	--	Minimum increment of R-10 insulation added	$0.07/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.35/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.35/square foot
Window Film	Existing Windows	See Note 5	$0.15/kWh annual energy savings (See Note 5)

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 4a – Building Envelope Incentives (Retrofit) (Continued)

Notes for Table 4a:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive the incentives in the above table.
4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
5. Incentives for window film are calculated based on film specifications and window orientation at $0.15/kWh annual energy savings. Energy savings are subject to approval by the Company.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient

Table 4b – Building Envelope Incentives (New Construction/Major Renovation)

Equipment Type	Category	Minimum Efficiency Requirement	Incentive "up to"
Cool Roof	--	ENERGY STAR Qualified	$0.10/square foot
Roof/Attic Insulation	--	Minimum increment of R-5 insulation above code (See Note 5)	$0.05/square foot
Wall Insulation	--	Minimum increment of R-3.7 continuous insulation above code (See Note 5)	$0.07/square foot
Windows (See Note 3, 4)	Site-Built	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Glazing Only Rating)	$0.35/square foot
	Assembly	U-Factor ≤ 0.30 and SHGC ≤ 0.33 (Entire Window Assembly Rating)	$0.35/square foot

Notes for Table 4b:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Building must be conditioned with mechanical cooling to be eligible for envelope incentives.
3. Energy performance of window assemblies and glazing products must be rated in accordance with NFRC. Site-Built metal window systems must include a thermal break within the frame or other appropriate NFRC certification to qualify for incentives. Skylights are not eligible to receive the incentives in the above table.
4. Window square footage is determined by the dimensions of the entire window assembly, not just the window glass.
5. Compliance with the minimum efficiency requirements of Roof/Attic and Wall Insulation measures may be demonstrated with equivalent U-factors and is subject to approval by the Company.

NFRC = National Fenestration Rating Council
SHGC = Solar Heat Gain Coefficient

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 5 – Food Service Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive/Unit "up to"
Residential Dishwasher	Used in a Business	See Home Energy Savings Program	See Note 2
Commercial Dishwasher (High Temperature models w/ electric boosters only)	Undercounter	ENERGY STAR Qualified	$100
	Stationary Rack, Single Tank, Door Type		$400
	Single Tank Conveyor		$1,000
	Multiple Tank Conveyor		$500
Electric Insulated Holding Cabinet	V ≥ 28 (Full Size	ENERGY STAR Qualified	$700
	13 ≤ V < 28 (3/4 Size		$300
	V < 13 (1/2 Size)		$200
Electric Steam Cooker			
	3-, 4-, 5- and 6-pan or larger sizes - Tier 2	ENERGY STAR Qualified w/ Heavy Load Efficiency ≥ 68%	$300
Electric Convection Oven	Full Size	ENERGY STAR Qualified	$200
Electric Griddle		ENERGY STAR Tier 2 Qualified	$150
Electric Combination Oven	6-15 pans	ENERGY STAR Qualified	$1,000
	16-20 pans	ENERGY STAR Qualified	$275
Ice Machines (Air-Cooled Only)	Tier 1: Harvest Rate < 500 lbs/day	ENERGY STAR Qualified	$125
	Tier 1: Harvest Rate ≥ 500 lbs/day		$150
	Tier 2: Harvest Rate < 500 lbs/day	CEE Tier 2 Qualified	$250
	Tier 2: Harvest Rate ≥ 500 lbs/day		$400
Residential Refrigerator	Used in a Business	See Home Energy Savings Program	See Note 2

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 5 – Food Service Equipment Incentives (Continued)

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive/Unit "up to"
Commercial Transparent Door Refrigerator	0 < V < 15	ENERGY STAR Qualified	$25
	15 ≤ V < 30		$50
	30 ≤ V < 50		$75
	50 ≤ V		$125
	Chest Configuration		$50
Commercial Transparent Door Freezer	0 < V < 15	ENERGY STAR Qualified	$25
	15 ≤ V < 30		$50
	30 ≤ V < 50		$75
	50 ≤ V		$100
	Chest Configuration		$100
Demand Controlled Kitchen Ventilation Exhaust Hood (Retrofit Only)	Must be installed on commercial kitchen exhaust system.	Variable speed motors must be controlled to vary fan speed depending upon kitchen demand, as indicated by connected sensors.	$0.15/kWh annual energy savings (See note 3)
Anti-Sweat Heater Controls (Retrofit Only)	Low-Temp (Freezing) Cases	Controls that reduce energy consumption of anti-sweat heaters based on sensing humidity.	$20/linear foot (case length)
	Med-Temp (Refrigerated) Cases		$16/linear foot (case length)

Notes for Table 5:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Refer to Company's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.
3. Incentives are paid at $0.15/kWh annual energy savings. Demand controlled kitchen ventilation exhaust hood energy savings subject to approval by Company.

CEE = Consortium for Energy Efficiency
MDEC = Maximum Daily Energy Consumption
V = Association of Home Appliance Manufacturers (AHAM) Volume (cubic feet)

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 6 – Office Equipment Incentives

Equipment Type	Minimum Efficiency Requirements	Incentive "up to"
Smart Plug Strip	1. Incentive applies to any plug strip that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an occupancy sensor, electric load sensor, or timer. 2. Applies only to electric plug-load applications (e.g. computer monitors, desk lamps, etc.)	$15/qualifying unit

Notes for Table 6:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.

Table 7 – Appliance Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirement	Incentive "up to"
High-Efficiency Clothes Washer	Residential (used in a business)	See Home Energy Savings Program	See Note 3
	Commercial (must have electric water heating and/or electric clothes dryer)	ENERGY STAR Qualified	$100
Heat Pump Water Heater	Residential (used in a business)	See Home Energy Savings Program	

Notes for Table 7:

1. Equipment that meets or exceeds the efficiency requirements listed for the equipment category in the above table may qualify for the listed incentive.
2. Equipment must meet the efficiency rating standard that is in effect on the date of purchase.
3. Refer to Company's Home Energy Savings program for efficiency requirements and incentives for listed residential appliances used in a business.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8a - Irrigation Incentives – Measures for Wheel Line, Hand Line, or Other Portable Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
New rotating sprinkler replacing worn or leaking impact or rotating sprinkler	Leaking or malfunctioning impact or rotating sprinkler	Rotating sprinkler	1. Fixed-in-place (solid set) systems not eligible. 2. Incentive limited to two sprinklers per irrigated acre.	$2.50 each
New or rebuilt impact sprinkler replacing worn or leaking impact sprinkler	Leaking or malfunctioning impact sprinkler	New or rebuilt impact sprinkler	1. New nozzle shall be included in new or rebuilt sprinkler. Rebuilt sprinkler shall meet or exceed manufacturer's specifications. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two sprinklers per irrigated acre.	$2.25 each
New nozzle replacing worn nozzle of same design flow or less on existing sprinkler	Worn nozzle	New nozzle of same design flow or less	1. Flow rate shall not be increased. 2. All nozzles on the wheel line or hand line shall be replaced. 3. Fixed-in-place (solid set) systems not eligible. 4. Incentive limited to two nozzles per irrigated acre.	$0.50 each
New flow-control nozzle for impact sprinkler replacing existing nozzle or worn flow-control nozzle of same design flow or less	Worn nozzle	New flow control nozzle	1. Nozzle to be replaced may be fixed orifice or flow control type. 2. New flow control nozzle shall have a flow rating equal to or less than the flow rating of the existing nozzles at 40 psi. 3. All nozzles on the wheel line or hand line shall be replaced. 4. Fixed-in-place (solid set) systems not eligible. 5. Incentive limited to two nozzles per irrigated acre.	$2.75 each
New gasket replacing leaking gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	Leaking gasket	New gasket, including mainline valve or section gasket, seal, or riser cap (dome disc)	1. New gasket must replace leaking gasket. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two gaskets per irrigated acre.	$2 each
New drain replacing leaking drain	Leaking drain	New drain, including drains on pivots and linears	1. New drain must replace leaking drain. 2. Fixed-in-place (solid set) systems not eligible. 3. Incentive limited to two drains per irrigated acre.	$3 each

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8a - Irrigation Incentives – Measures for Wheel Line, hand Line, or Other Portable Systems (Retrofit Only) (Continued)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Cut and press or weld repair of leaking wheel line, hand line, or portable main line	Leak in wheel line, hand line, or portable main line	Cut and pipe press or weld repair	For rebuilds, invoice must show number of rebuild kits purchased and installed.	$10/repair
New or rebuilt wheel line leveler replacing leaking or malfunctioning leveler	Leaking or malfunctioning leveler	New or rebuilt leveler	1. Applies to leaking or malfunctioning levelers only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	$3 each
New or rebuilt wheel line feed hose replacing leaking wheel line feed hose	Leaking wheel line feed hose	New or rebuilt wheel line feed hose	1. Applies to leaking wheel line feed hose only. 2. For rebuilds, invoice must show number of rebuild kits purchased and installed.	$12 each
New Thunderbird wheel line hub replacing leaking wheel line hub	Leaking Thunderbird wheel line hub	New Thunderbird wheel line hub	New hub must replace leaking hub	$10 each

Table 8b - Irrigation Incentives – Measures for Pivots and Linear Systems (Retrofit Only)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Pressure regulator	Worn pressure regulator	New pressure regulator of same design pressure or less	New regulator must be of same design pressure or less	$3 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing impact sprinkler	Impact sprinkler	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	New sprinkler is of same design flow or less	$3 each
Low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray) replacing worn low pressure sprinkler	Worn low pressure sprinkler (e.g. rotating, wobbling, multi-trajectory spray)	New low pressure sprinkler (on-board nozzle is considered part of sprinkler, not a separate item with additional incentive)	New sprinkler is of same design flow or less	$1.50 each
Gooseneck as part of conversion to low pressure system		New gooseneck as part of conversion to low pressure system	Gooseneck shall be used to convert existing center pivot with sprinkler equipment mounted on top of the pivot to low pressure sprinklers with regulators on new drop tubes.	$0.50 per outlet

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 8b - Irrigation Incentives – Measures for Pivots and Linear Systems (Retrofit Only) (continued)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Drop tube (3 ft minimum length)	Leaking drop tube	New drop tube (3 ft minimum length) OR add drop tube as part of conversion to low pressure system	Drop tube or hose extension shall extend below the pivot lower brace or shall be a minimum of 3 ft in length, whichever is greater.	$2 per drop tube
New center pivot base boot gasket replacing leaking base boot gasket	Leaking center pivot base boot gasket	New center pivot base boot gasket	1. Gasket shall replace leaking gasket at the pivot point of the center pivot. 2. No more than one gasket shall be claimed per pivot.	$125 each
New tower gasket replacing leaking tower gasket	Leaking tower gasket	New tower gasket	New gasket shall replace leaking tower gasket.	$4 each

Table 8c - Irrigation Incentives – Measures for Any Type of System (Retrofit or New Construction, Including Non-Agricultural Irrigation Applications)

Irrigation Measure	Replace	With	Limitations	Incentive "up to"
Irrigation pump VFD		Add variable frequency drive to existing or new irrigation pump	1. Pumps serving any type of irrigation water transport or distribution system are eligible – wheel lines, hand lines, pivots, linears, fixed-in-place (solid set). 2. Both retrofit and new construction projects are eligible.	$0.15/kWh annual savings

Notes for Irrigation Incentive Tables:

1. Equipment that meets or exceeds the requirements listed above may qualify for the listed incentive.
2. Except for the pump VFD measure, incentives listed here are available only for retrofit projects where new equipment replaces existing equipment (i.e. new construction is not eligible).
3. Except for the pump VFD measure, equipment installed in fixed-in-place (solid set) systems is not eligible. Incentive is limited to two units per irrigated acre.
4. Incentives are capped at 70 percent of Energy Efficiency Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.

VFD = Variable Frequency Drive

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 9 – Farm and Dairy Equipment Incentives

Equipment Type	Equipment Category	Minimum Efficiency Requirements	Incentive "up to"
Automatic Milker Takeoff (Retrofit Only)	--	Equipment must be able to sense milk flow and remove milker when flow reaches a pre-set level. The vacuum pump serving the affected milking units must be equipped with a VFD. Incentive is available for adding automatic milker takeoffs to existing milking systems, not for takeoffs on a brand new system where there were none before. Replacement of existing automatic milker takeoffs is not eligible for this listed incentive, but may qualify for a Custom Energy Efficiency incentive.	$235 each
Agricultural Engine Block Heater Timer	--	Timer must be a UL-listed device and rated for a minimum of 15 amps continuous duty.	$10 each
High-efficiency Circulating fan (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	$25/fan
	24-35" Diameter	Fan must achieve an efficiency level of 18 cfm/W	$35/fan
	36-47" Diameter	Fans must achieve an efficiency level of 18 cfm/W	$50/fan
	≥48" Diameter	Fans must achieve an efficiency level of 25 cfm/W	$75/fan
Heat Recovery	--	Heat recovery unit must use heat rejected from milk cooling refrigeration system to heat water. Customer must use electricity for water heating.	$0.15/kWh annual energy savings
High-efficiency Ventilation Fan (See Note 2)	12-23" Diameter	Fan must achieve an efficiency level of 11 cfm/W	$45/fan
	24-35" Diameter	Fan must achieve an efficiency level of 13 cfm/W	$75/fan
	36-47" Diameter	Fan must achieve an efficiency level of 17 cfm/W	$125/fan
	≥48" Diameter	Fan must achieve an efficiency level of 19.5 cfm/W	$150/fan
Milk Pre-cooler (Retrofit Only)	--	The equipment must cool milk with well-water before it reaches the bulk cooling tank. New construction not eligible.	$0.15/kWh annual energy savings

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 9 – Farm and Dairy Equipment Incentives (continued)

Equipment Type	Equipment Category	Minimum Efficiency Requirements	Incentive "up to"
Programmable Ventilation Controllers	--	The controller must control ventilation fans based on temperature or other applicable factors such as humidity, odor concentration, etc.	$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pumps (Retrofit Only)	--	VFD must vary motor speed based on target vacuum level. Incentive available for retrofit only. New construction and replacement of existing VFD not eligible.	$165/hp

Notes for Table 9:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Fan performance must be rated by an independent testing body in accordance with the appropriate ANSI/AMCA standards.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs and incentives will not be available to reduce Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.
4. Except where noted, all equipment listed in the table is eligible for incentives in both new construction and retrofit projects.

AMCA = Air Movement and Control Association International, Inc.
ANSI = American National Standards Institute
cfm = cubic feet per minute
VFD = Variable Frequency Drive
W = watt

Table 10 – Compressed Air Incentives

Equipment Category	Replace	With	Limitations	Unit	Incentive "up to"
Low Pressure Drop Filter	Standard coalescing filter	Low Pressure drop filter where: 1.Pressure loss at rated flow is ≤1 psi when new and ≤3 psi at element change. 2. Particulate filtration is 100% at ≥3.0 microns and 99.98% at 0.1 to 3.0 microns, with ≤ 5ppm liquid carryover. 3. Filter is of deep-bed "mist eliminator" style, with element life ≥ 5 years. 4. Rated capacity of filter is ≤ 500 scfm.	1. Compressor system must be ≥ 25 hp and ≤ 75 hp. 2. Compressor discharge pressure setpoint must be reduced by 2 psi or more after installation of low pressure drop filter.	scfm	$2/scfm

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 10 – Compressed Air Incentives (Continued)

Equipment Category	Replace	With	Limitations	Unit	Incentive "up to"
Receiver Capacity Addition	Limited or no receiver capacity (≤ 2 gallons per scfm of trim compressor capacity)	Total receiver capacity after addition must be > 2 gallons per scfm of trim compressor capacity	1. Compressor system size ≤ 75 horsepower, not counting backup compressor(s). 2. Trim compressor must use load/unload control, not inlet modulation or on/off control. 3. Systems with VFD compressor or using variable displacement compressor as trim compressor are not eligible.	gal	$3/gal above 2 gallons per scfm
Cycling Refrigerated Dryer	Non-cycling refrigerated dryer	Cycling refrigerated dryer	1. Rated dryer capacity must be ≤ 500 scfm. 2. Dryer must operate exclusively in cycling mode and cannot be equipped with the ability to select between cycling and non-cycling mode. 3. Refrigeration compressor must cycle off during periods of reduced demand.	scfm	$2/scfm
VFD Controlled Compressor	Fixed speed compressor	≤75 hp VFD controlled oil-injected screw compressor operating in system with total compressor capacity ≤75 hp, not counting backup compressor capacity	1. Total compressor capacity in upgraded system is ≤75 hp, not counting backup compressor. 2. Compressor must adjust speed as primary means of capacity control.		$0.15/kWh annual energy savings
Zero Loss Condensate Drain	Fixed timer drain	Zero loss condensate drain (See Note 4)	Drain is designed to function without release of compressed air into the atmosphere. Any size system is eligible there is no restriction on compressor size.	each	$100 each
Outside Air Intake	Compressor drawing intake air from compressor room	Permanent ductwork between compressor air intake and outdoors.	1. Compressor system size ≤ 75 HP. 2. Ductwork must meet manufacturer's specifications, which may include: (a) ≤ 0.25" W.C. pressure loss at rated flow, and (b) allow use of compressor room air during extremely cold outside air conditions	hp	$6/hp
Compressed air end use reduction	Inappropriate or inefficient compressed air end uses	Functionally equivalent alternatives or isolation valves	Any size system is eligible – there is no restriction on compressor size.		$0.15/kWh annual energy savings

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 10 – Compressed Air Incentives (Continued)

Notes for Table 10:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Except for the zero loss condensate drain and compressed air end use reduction measures, eligibility for incentives is limited to compressed air systems with total compressor capacity of 75 hp or less, not including backup compressor capacity that does not normally run.
3. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.
4. Zero loss condensate drains purchased as an integral part of another measure are eligible for the incentive shown above.

hp = horsepower
ppm = parts per million
psi = pounds per square inch
scfm = cubic feet of air per minute at standard conditions (14.5 psia, 68°F, and 0% relative humidity)
VFD = variable frequency drive

Table 11 - Incentives for Wastewater, Oil and Gas, and Other Refrigeration Energy Efficiency Measures

Equipment Type	Replace	With	Incentive "up to"
Adaptive refrigeration control	Conventional controls (defrost timeclock, space thermostat, evaporator fan control, if any, thermal expansion valve in some instances)	Adaptive refrigeration controller and, in some instances, electric expansion valve	$0.15/kWh annual energy savings
Fast acting door	Manually operated door, automatic door with long cycle time, strip curtain, or entryway with no door in refrigerated/conditioned space	Fast acting door	$0.15/kWh annual energy savings
Oil and gas pump off controller		Add pump off controller to existing oil or gas well	$1,500 per controller
Wastewater – low power mixer	Excess aeration capacity	Extended range circulator	$0.15/kWh annual energy savings

Notes for Table 11:

1. Equipment that meets or exceeds the efficiency requirements above may qualify for the listed incentive.
2. Incentives are capped at 70 percent of Energy Efficiency Project Costs, and incentives will not be available to reduce the Energy Efficiency Project simple payback below one year. Energy savings and Energy Efficiency Project Costs are subject to Company approval.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued
Small Business Direct Install (Retrofit only)

Incentives and participation for small business direct installations may include but not be limited to lighting, plug load, HVAC measures, and areas being canvassed. Participating customers are required to pay for up to 25% of the qualifying equipment costs.

Table 12 – Incentives for Small Business Direct Installation (Retrofit only)

Eligible Customer Rate Schedules	Eligibility Requirements	Incentive "up to"	Customer Co-pay "up to"	
			Minimum	Maximum
6	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6a	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
6b	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	$5,000 per facility	10%	25%
23		$5,000 per facility	10%	25%

Table 13a – Mid-Market Incentives -Lighting

Measure	Category	Eligibility Requirements	Incentive "up to"
LED	A-19 Lamp < 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-19 Lamp ≥ 8 W, Medium Base	LED must be listed on qualified equipment list	$5/Lamp
	A-21 Lamp > 12 W, Medium Base	LED must be listed on qualified equipment list	$10/Lamp
	PAR Reflector Lamp	LED must be listed on qualified equipment list	$15/Lamp
	BR Reflector Lamp	LED must be listed on qualified equipment list	$13/Lamp
	MR16 Reflector Lamp	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp < 10 W	LED must be listed on qualified equipment list	$10/Lamp
	PLC Pin-based Lamp > 10 W	LED must be listed on qualified equipment list	$15/Lamp
	PLL Pin-based Lamp	LED must be listed on qualified equipment list	$15/Lamp
	Decorative Lamp	LED must be listed on qualified equipment list	$10/Lamp
	Recessed Downlight Kit	LED must be listed on qualified equipment list	$15/Fixture
	T8 TLED Lamp – Type A, A/B Dual Mode	LED must be listed on qualified equipment list	$10/Lamp
	T8 TLED Lamp – Type B	LED must be listed on qualified equipment list	$15/Lamp
	T8 TLED Lamp – Type C	LED must be listed on qualified equipment list	$25/Lamp
	T5 TLED Lamp	LED must be listed on qualified equipment list	$15/Lamp
	HID Replacement Lamp < 40 W	LED must be listed on qualified equipment list	$50/Lamp
	HID Replacement Lamp ≥ 40 and < 80 W	LED must be listed on qualified equipment list	$70/Lamp
	HID Replacement Lamp ≥ 80 and < 150 W	LED must be listed on qualified equipment list	$90/Lamp
	HID Replacement Lamp ≥ 150W	LED must be listed on qualified equipment list	$110/Lamp
	Wall Pack Fixture	LED must be listed on qualified equipment list	$30/Fixture
	Wall Pack Fixture with Occupancy Sensor	LED must be listed on qualified equipment list	$75/Fixture
	Troffer Kit/Fixture	LED must be listed on qualified equipment list	$30/Fixture
	Linear Ambient Kit/Fixture	LED must be listed on qualified equipment list	$20/Fixture

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 13a – Mid-Market Incentives –Lighting (Continued)

Notes for Table 13a:

1. Incentives for measures listed in the table above are available at the point of purchase through approved distributors/retailers or via a post-purchase customer application process.
2. Incentives are capped at 70 percent of qualifying equipment costs. Qualifying equipment costs are subject to Company approval. Limits to the number of items per transaction eligible for incentives may apply.
3. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.

A = Arbitrary (standard lamp shape)
PAR = Parabolic Aluminized Reflector
BR = Bulged Reflector
HID = High Intensity Discharge (e.g. high pressure sodium, metal halide)
HO = High Output
MR = Mirrored Reflector
PLC = Pin Lamp Compact Fluorescent
PLL = Pin Lamp Long Compact Fluorescent
TLED = Tubular Light Emitting Diode
W = Watt

Table 13b – Mid-Market Incentives –HVAC

Measure	Category	Eligibility Requirements	Customer/Mid-Market Incentive "up to"
Unitary Commercial Air Conditioners	Air-Cooled – Packaged Systems Only	As defined in CEE Commercial Unitary Air-conditioning and Heat Pumps Specification	$100/Ton

Notes for Table 13b:

1. Incentives are capped at 70 percent of qualifying equipment cost. Qualifying equipment costs are subject to Company approval.
2. Qualified equipment lists referenced in the above table are posted on the Utah energy efficiency program section of the Company's website.
3. Incentives included in the mid-market incentive tables are available through Company-approved retailers/distributors or a customer application process.

(continued)

ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Table 14 – HVAC Check-up Incentives

Measure	Category	Eligibility Requirements	Incentive "up to"
Maintenance Agreement	3 year maintenance agreement	Maintenance agreements must include a minimum of two system checks per year (heating and cooling seasons), one condenser coil cleaning per year, and a thermostat reprogramming and calibration.	$75/ RTU
Thermostats	Programmable Thermostat	Replace existing non-programmable thermostat with programmable thermostat with a minimum of 7-day occupied/unoccupied settings.	$50/Thermostat
	Smart Thermostat	Replace non-programmable thermostat with programmable smart thermostat with a minimum of 7-day occupied/unoccupied settings. Smart thermostats must be Wi-Fi enabled, online dashboard and/or mobile device app, with occupancy sensor enabled.	
Economizer	Economizer Repair	--	$150/RTU
Refrigerant	Proper Refrigerant Charge	--	$35/Ton RTU Capacity

Notes for Table 14:

1. Incentives are capped at 70 percent of qualifying cost. Qualifying costs are subject to Company approval.

Exhibit B

wattsmart Business Portfolio
Cost-Effectiveness (Expected Participation)

NAVIGANT

Memorandum

To: Nicole Karpavich, PacifiCorp

From: David Basak, Navigant

Date: February 8, 2019

Re: Cost Effectiveness for the Utah Wattsmart Business Program – Expected Participation

Navigant has developed this memo in response to PacifiCorp's proposed Wattsmart Business Program cost-effectiveness modeling needs in the state of Utah. Each scenario is analyzed using modeled assumptions provided by PacifiCorp. These scenarios utilize the following assumptions:

- **Scenarios:** Ran cost-effectiveness for program year 2019 only.
- ***Avoided Costs:*** Navigant performed a custom analysis of calculating avoided costs by using the *2017 D*ecrement and applied against Utah specific commercial, industrial, and irrigation end-use specific load shapes.
- ***Modeling Inputs:*** Measure category savings provided by PacifiCorp in the file *UT In House-Cascade CE 2019 v3.xlsx*.
- ***Energy Rates:*** Utilized the rates provided by PacifiCorp for PY2017 and applied an escalation of 2.22% to arrive at estimated energy rates for PY2019.
- ***Line Loss Factors:*** Commercial, industrial and irrigation line loss factor utilized throughout the analysis.

This memo will begin by addressing the inputs used in the analysis of the Utah Wattsmart Business Program. The cost-effectiveness inputs are as follows:

1375 Walnut Street
Suite 100 | Boulder, CO 80302
303.728.2500 main
navigant.com

Table 1 - Utility Inputs

Parameter	PY2019
Discount Rate	6.57%
Commercial Line Loss	8.71%
Industrial Line Loss	5.85%
Irrigation Line Loss	9.24%
Commercial Energy Rate ($/kWh)[1]	$0.0881
Industrial Energy Rate ($/kWh)[1]	$0.0619
Irrigation Energy Rate ($/kWh)[1]	$0.0828
Inflation Rate	2.22%

[1] Future rates determined using a 2.22% annual escalator.

Table 2 –Program Costs by Measure Category (Expected Participation)

Measure Category	Program Admin Delivery	Utility Admin	Engineering/ Inspection Costs	Incentives	Total Utility Costs	Gross Customer Costs
Additional Measures	$42,636	$83,770	$133,471	$490,651	$750,528	$2,061,298
Appliance	$2,140	$106	$0	$7,260	$9,506	$17,380
Building Shell	$15,562	$7,405	$10,692	$243,085	$276,745	$608,319
Compressed Air	$221,378	$71,324	$106,986	$793,399	$1,193,087	$1,665,843
Direct Install	$773,056	$3,720	$0	$2,777,020	$3,553,796	$0
Electronics	$924	$46	$0	$1,235	$2,205	$2,945
Energy Management	$498,431	$5,037	$1,240,808	$946,297	$2,690,572	$926,747
Energy Manager Co-Funding	$0	$9,199	$0	$636,252	$645,451	$0
Farm & Dairy	$3,797	$85	$0	$3,356	$7,238	$17,225
Food Service Equipment	$55,926	$28,263	$41,087	$228,438	$353,714	$727,383
HVAC	$864,913	$348,366	$496,895	$4,226,465	$5,936,639	$16,162,370
Irrigation	$188,224	$4,199	$0	$154,736	$347,159	$385,914
Lighting	$4,123,136	$343,275	$220,725	$4,348,964	$9,036,100	$17,643,822
Motors	$233,785	$94,046	$147,512	$546,350	$1,021,693	$1,937,142
Oil & Gas	$4,911	$0	$0	$6,000	$10,911	$13,544
Refrigeration	$8,496	$87,404	$140,556	$787,168	$1,023,623	$2,712,455
All	**$7,037,315**	**$1,086,243**	**$2,538,733**	**$16,196,675**	**$26,858,966**	**$44,882,386**

Table 3 – Program Savings by Measure Category (Expected Participation)

Measure Category	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Additional Measures	5,838,370	87%	5,079,382	76%	3,860,330	15
Appliance	22,000	87%	19,140	76%	14,546	11
Building Shell	598,111	87%	520,357	76%	395,471	16
Compressed Air	6,302,283	100%	6,302,283	86%	5,419,963	15
Direct Install	9,677,320	97%	9,387,000	76%	7,134,120	12
Electronics	9,500	87%	8,265	76%	6,281	4
Energy Management	47,314,848	100%	47,314,848	89%	42,110,215	3
Energy Manager Co-Funding	0	0%	0	0%	0	0
Farm & Dairy	32,910	90%	29,619	79%	23,399	5
Food Service Equipment	2,258,485	87%	1,964,882	76%	1,493,310	7
HVAC	28,425,164	100%	28,425,164	57%	16,202,343	16
Irrigation	1,631,283	90%	1,468,155	79%	1,159,842	12
Lighting	44,944,003	100%	44,944,003	91%	40,899,043	14
Motors	8,011,605	91%	7,290,561	90%	6,561,504	15
Oil & Gas	38,828	87%	33,780	76%	25,673	15
Refrigeration	5,832,762	100%	5,832,762	51%	2,974,709	15
All	**160,937,472**	**99%**	**158,620,200**	**81%**	**128,280,751**	**11**

Table 4 - Benefit/Cost Ratios by Measure Category (Expected Participation)

Measure Category	PTRC	TRC	UCT	RIM	PCT
Additional Measures	1.20	1.09	2.65	0.56	2.01
Appliance	0.37	0.34	0.55	0.24	1.31
Building Shell	0.52	0.48	0.85	0.34	1.32
Compressed Air	1.68	1.53	2.34	0.55	3.20
Direct Install	4.03	3.66	0.80	0.29	0.00
Electronics	0.26	0.23	0.34	0.17	1.37
Energy Management	1.61	1.47	1.40	0.28	14.26
Energy Manager Co-Funding	n/a	n/a	n/a	n/a	n/a
Farm & Dairy	0.22	0.20	0.49	0.21	0.87
Food Service Equipment	0.52	0.47	0.91	0.27	1.82
HVAC	1.14	1.03	1.90	0.48	2.15
Irrigation	1.11	1.01	1.45	0.39	3.50
Lighting	1.03	0.94	2.15	0.40	2.73
Motors	1.66	1.51	3.28	0.58	2.99
Oil & Gas	0.95	0.86	1.20	0.45	2.24
Refrigeration	1.03	0.94	1.49	0.48	1.84
All	**1.20**	**1.09**	**1.79**	**0.41**	**2.92**

The tables below provide cost-effectiveness results for the combination of all delivery channels beginning with overall PY2019 results followed by the individual measure category results.

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results - PY2019 (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0435	$44,240,869	$52,897,563	$8,656,694	1.20
Total Resource Cost Test (TRC) No Adder	$0.0435	$44,240,869	$48,088,694	$3,847,825	1.09
Utility Cost Test (UCT)	$0.0264	$26,858,966	$48,088,694	$21,229,728	1.79
Rate Impact Test (RIM)		$116,398,093	$48,088,694	-$68,309,399	0.41
Participant Cost Test (PCT)		$44,882,386	$130,863,024	$85,980,639	2.92
Lifecycle Revenue Impacts ($/kWh)					$0.0000161492
Discounted Participant Payback (years)					2.70

Table 6 – WSB Measure Category Level Cost-Effectiveness Results – Additional Measures (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0436	$1,826,464	$2,190,617	$364,153	1.20
Total Resource Cost Test (TRC) No Adder	$0.0436	$1,826,464	$1,991,470	$165,006	1.09
Utility Cost Test (UCT)	$0.0179	$750,528	$1,991,470	$1,240,942	2.65
Rate Impact Test (RIM)		$3,530,039	$1,991,470	-$1,538,569	0.56
Participant Cost Test (PCT)		$2,061,298	$4,147,902	$2,086,604	2.01
Lifecycle Revenue Impacts ($/kWh)					$0.0000041679
Discounted Participant Payback (years)					7.32

Table 7 – WSB Measure Category Level Cost-Effectiveness Results – Appliance (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1236	$15,455	$5,708	-$9,747	0.37
Total Resource Cost Test (TRC) No Adder	$0.1236	$15,455	$5,189	-$10,266	0.34
Utility Cost Test (UCT)	$0.0760	$9,506	$5,189	-$4,317	0.55
Rate Impact Test (RIM)		$21,305	$5,189	-$16,116	0.24
Participant Cost Test (PCT)		$17,380	$22,785	$5,405	1.31
Lifecycle Revenue Impacts ($/kWh)					$0.0000000606
Discounted Participant Payback (years)					9.10

Table 8 – WSB Measure Category Level Cost-Effectiveness Results – Building Shell (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1104	$495,982	$259,329	-$236,653	0.52
Total Resource Cost Test (TRC) No Adder	$0.1104	$495,982	$235,753	-$260,228	0.48
Utility Cost Test (UCT)	$0.0616	$276,745	$235,753	-$40,992	0.85
Rate Impact Test (RIM)		$701,278	$235,753	-$465,524	0.34
Participant Cost Test (PCT)		$608,319	$801,681	$193,362	1.32
Lifecycle Revenue Impacts ($/kWh)					$0.0000011790
Discounted Participant Payback (years)					13.03

Table 9 – WSB Measure Category Level Cost-Effectiveness Results – Compressed Air (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0312	$1,832,313	$3,075,659	$1,243,347	1.68
Total Resource Cost Test (TRC) No Adder	$0.0312	$1,832,313	$2,796,054	$963,741	1.53
Utility Cost Test (UCT)	$0.0203	$1,193,087	$2,796,054	$1,602,967	2.34
Rate Impact Test (RIM)		$5,095,564	$2,796,054	-$2,299,510	0.55
Participant Cost Test (PCT)		$1,665,843	$5,331,162	$3,665,320	3.20
Lifecycle Revenue Impacts ($/kWh)					$0.0000062293
Discounted Participant Payback (years)					2.64

Table 10 – WSB Measure Category Level Cost-Effectiveness Results – Direct Install (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0118	$776,776	$3,131,571	$2,354,795	4.03
Total Resource Cost Test (TRC) No Adder	$0.0118	$776,776	$2,846,882	$2,070,106	3.66
Utility Cost Test (UCT)	$0.0542	$3,553,796	$2,846,882	-$706,914	0.80
Rate Impact Test (RIM)		$9,746,734	$2,846,882	-$6,899,851	0.29
Participant Cost Test (PCT)		$0	$10,925,622	$10,925,622	n/a
Lifecycle Revenue Impacts ($/kWh)					$0.0000236454
Discounted Participant Payback (years)					n/a

Table 11 – WSB Measure Category Level Cost-Effectiveness Results – Electronics (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1419	$3,208	$821	-$2,387	0.26
Total Resource Cost Test (TRC) No Adder	$0.1419	$3,208	$746	-$2,462	0.23
Utility Cost Test (UCT)	$0.0975	$2,205	$746	-$1,459	0.34
Rate Impact Test (RIM)		$4,332	$746	-$3,586	0.17
Participant Cost Test (PCT)		$2,945	$4,034	$1,089	1.37
Lifecycle Revenue Impacts ($/kWh)					$0.0000000446
Discounted Participant Payback (years)					3.16

Table 12 – WSB Measure Category Level Cost-Effectiveness Results – Energy Management (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0221	$2,569,080	$4,146,390	$1,577,310	1.61
Total Resource Cost Test (TRC) No Adder	$0.0221	$2,569,080	$3,769,445	$1,200,366	1.47
Utility Cost Test (UCT)	$0.0232	$2,690,572	$3,769,445	$1,078,873	1.40
Rate Impact Test (RIM)		$13,607,394	$3,769,445	-$9,837,948	0.28
Participant Cost Test (PCT)		$926,747	$13,212,389	$12,285,642	14.26
Lifecycle Revenue Impacts ($/kWh)					$0.0001742883
Discounted Participant Payback (years)					n/a

Table 13 – WSB Measure Category Level Cost-Effectiveness Results – Energy Mgr. Co-Fund (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	n/a	$9,199	$0	-$9,199	0.00
Total Resource Cost Test (TRC) No Adder	n/a	$9,199	$0	-$9,199	0.00
Utility Cost Test (UCT)	n/a	$645,451	$0	-$645,451	0.00
Rate Impact Test (RIM)		$9,199	$0	-$9,199	0.00
Participant Cost Test (PCT)		$0	$0	$0	n/a
Lifecycle Revenue Impacts ($/kWh)					n/a
Discounted Participant Payback (years)					n/a

Table 14 – WSB Measure Category Level Cost-Effectiveness Results – Farm & Dairy (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1696	$17,490	$3,866	-$13,624	0.22
Total Resource Cost Test (TRC) No Adder	$0.1696	$17,490	$3,514	-$13,976	0.20
Utility Cost Test (UCT)	$0.0702	$7,238	$3,514	-$3,724	0.49
Rate Impact Test (RIM)		$16,359	$3,514	-$12,845	0.21
Participant Cost Test (PCT)		$17,225	$14,902	-$2,324	0.87
Lifecycle Revenue Impacts ($/kWh)					$0.0000001199
Discounted Participant Payback (years)					8.09

Table 15 – WSB Measure Category Level Cost-Effectiveness Results – Food Service Equip. (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0766	$678,087	$354,292	-$323,795	0.52
Total Resource Cost Test (TRC) No Adder	$0.0766	$678,087	$322,084	-$356,003	0.47
Utility Cost Test (UCT)	$0.0400	$353,714	$322,084	-$31,630	0.91
Rate Impact Test (RIM)		$1,187,191	$322,084	-$865,107	0.27
Participant Cost Test (PCT)		$727,383	$1,325,118	$597,735	1.82
Lifecycle Revenue Impacts ($/kWh)					$0.0000053908
Discounted Participant Payback (years)					3.95

Table 16 – WSB Measure Category Level Cost-Effectiveness Results – HVAC (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0594	$10,922,725	$12,434,028	$1,511,303	1.14
Total Resource Cost Test (TRC) No Adder	$0.0594	$10,922,725	$11,303,662	$380,937	1.03
Utility Cost Test (UCT)	$0.0323	$5,936,639	$11,303,662	$5,367,023	1.90
Rate Impact Test (RIM)		$23,329,635	$11,303,662	-$12,025,974	0.48
Participant Cost Test (PCT)		$16,162,370	$34,740,494	$18,578,124	2.15
Lifecycle Revenue Impacts ($/kWh)					$0.0000304576
Discounted Participant Payback (years)					9.76

Table 17 – WSB Measure Category Level Cost-Effectiveness Results – Irrigation (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0466	$497,295	$552,352	$55,057	1.11
Total Resource Cost Test (TRC) No Adder	$0.0466	$497,295	$502,138	$4,843	1.01
Utility Cost Test (UCT)	$0.0325	$347,159	$502,138	$154,979	1.45
Rate Impact Test (RIM)		$1,293,075	$502,138	-$790,937	0.39
Participant Cost Test (PCT)		$385,914	$1,352,098	$966,184	3.50
Lifecycle Revenue Impacts ($/kWh)					$0.0000027105
Discounted Participant Payback (years)					2.43

Table 18 – WSB Measure Category Level Cost-Effectiveness Results – Lighting (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0491	$20,743,014	$21,372,803	$629,789	1.03
Total Resource Cost Test (TRC) No Adder	$0.0491	$20,743,014	$19,429,821	-$1,313,193	0.94
Utility Cost Test (UCT)	$0.0214	$9,036,100	$19,429,821	$10,393,721	2.15
Rate Impact Test (RIM)		$48,915,021	$19,429,821	-$29,485,200	0.40
Participant Cost Test (PCT)		$17,643,822	$48,171,954	$30,528,132	2.73
Lifecycle Revenue Impacts ($/kWh)					$0.0000858504
Discounted Participant Payback (years)					3.83

Table 19 – WSB Measure Category Level Cost-Effectiveness Results – Motors (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0312	$2,218,771	$3,683,318	$1,464,547	1.66
Total Resource Cost Test (TRC) No Adder	$0.0312	$2,218,771	$3,348,471	$1,129,700	1.51
Utility Cost Test (UCT)	$0.0143	$1,021,693	$3,348,471	$2,326,778	3.28
Rate Impact Test (RIM)		$5,746,101	$3,348,471	-$2,397,630	0.58
Participant Cost Test (PCT)		$1,937,142	$5,795,692	$3,858,550	2.99
Lifecycle Revenue Impacts ($/kWh)					$0.0000060065
Discounted Participant Payback (years)					3.54

Table 20 – WSB Measure Category Level Cost-Effectiveness Results – Oil & Gas (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0546	$15,205	$14,431	-$774	0.95
Total Resource Cost Test (TRC) No Adder	$0.0546	$15,205	$13,119	-$2,086	0.86
Utility Cost Test (UCT)	$0.0392	$10,911	$13,119	$2,208	1.20
Rate Impact Test (RIM)		$29,396	$13,119	-$16,278	0.45
Participant Cost Test (PCT)		$13,544	$30,323	$16,779	2.24
Lifecycle Revenue Impacts ($/kWh)					$0.0000018829
Discounted Participant Payback (years)					5.06

Table 21 – WSB Measure Category Level Cost-Effectiveness Results – Refrigeration (Expected Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0502	$1,619,807	$1,672,380	$52,573	1.03
Total Resource Cost Test (TRC) No Adder	$0.0502	$1,619,807	$1,520,346	-$99,461	0.94
Utility Cost Test (UCT)	$0.0317	$1,023,623	$1,520,346	$496,723	1.49
Rate Impact Test (RIM)		$3,165,469	$1,520,346	-$1,645,124	0.48
Participant Cost Test (PCT)		$2,712,455	$4,986,867	$2,274,413	1.84
Lifecycle Revenue Impacts ($/kWh)					$0.0000044566
Discounted Participant Payback (years)					13.00

Exhibit C

wattsmart Business Portfolio
Sensitivity Analysis
(+10% Participation)

NAVIGANT

Memorandum

To: Nicole Karpavich, PacifiCorp

From: David Basak, Navigant

Date: February 8, 2019

Re: Cost Effectiveness for the Utah Wattsmart Business Program – High (+10%) Participation

Navigant has developed this memo in response to PacifiCorp's proposed Wattsmart Business Program cost-effectiveness modeling needs in the state of Utah. Each scenario is analyzed using modeled assumptions provided by PacifiCorp. These scenarios utilize the following assumptions:

- **Scenarios:** Ran cost-effectiveness for program year 2019 only.
- ***Avoided Costs:*** Navigant performed a custom analysis of calculating avoided costs by using the *2017 D*ecrement and applied against Utah specific commercial, industrial, and irrigation end-use specific load shapes.
- ***Modeling Inputs:*** Measure category savings provided by PacifiCorp in the file *UT In House-Cascade CE 2019 v3.xlsx*.
- ***Energy Rates:*** Utilized the rates provided by PacifiCorp for PY2017 and applied an escalation of 2.22% to arrive at estimated energy rates for PY2019.
- ***Line Loss Factors:*** Commercial, industrial and irrigation line loss factor utilized throughout the analysis.

This memo will begin by addressing the inputs used in the analysis of the Utah Wattsmart Business Program. The cost-effectiveness inputs are as follows:

1375 Walnut Street
Suite 100 | Boulder, CO 80302
303.728.2500 main
navigant.com

Table 1 - Utility Inputs

Parameter	PY2019
Discount Rate	6.57%
Commercial Line Loss	8.71%
Industrial Line Loss	5.85%
Irrigation Line Loss	9.24%
Commercial Energy Rate ($/kWh)[1]	$0.0881
Industrial Energy Rate ($/kWh)[1]	$0.0619
Irrigation Energy Rate ($/kWh)[1]	$0.0828
Inflation Rate	2.22%

[1] Future rates determined using a 2.22% annual escalator.

Table 2 –Program Costs by Measure Category (High Participation)

Measure Category	Program Admin Delivery	Utility Admin	Engineering/ Inspection Costs	Incentives	Total Utility Costs	Gross Customer Costs
Additional Measures	$42,636	$83,770	$133,471	$539,716	$799,593	$2,267,428
Appliance	$2,140	$106	$0	$7,986	$10,232	$19,118
Building Shell	$15,562	$7,405	$10,692	$267,394	$301,053	$669,150
Compressed Air	$221,378	$71,324	$106,986	$872,739	$1,272,427	$1,832,427
Direct Install	$773,056	$3,720	$0	$3,054,722	$3,831,498	$0
Electronics	$924	$46	$0	$1,359	$2,328	$3,240
Energy Management	$498,431	$5,037	$1,240,808	$1,040,927	$2,785,202	$1,019,421
Energy Manager Co-Funding	$0	$9,199	$0	$699,878	$709,077	$0
Farm & Dairy	$3,797	$85	$0	$3,691	$7,573	$18,948
Food Service Equipment	$55,926	$28,263	$41,087	$251,282	$376,558	$800,121
HVAC	$864,913	$348,366	$496,895	$4,649,112	$6,359,285	$17,778,607
Irrigation	$188,224	$4,199	$0	$170,209	$362,632	$424,505
Lighting	$4,123,136	$343,275	$220,725	$4,783,860	$9,470,996	$19,408,204
Motors	$233,785	$94,046	$147,512	$600,985	$1,076,328	$2,130,856
Oil & Gas	$4,911	$0	$0	$6,600	$11,511	$14,898
Refrigeration	$8,496	$87,404	$140,556	$865,884	$1,102,339	$2,983,700
All	**$7,037,315**	**$1,086,243**	**$2,538,733**	**$17,816,342**	**$28,478,634**	**$49,370,624**

Table 3 – Program Savings by Measure Category (High Participation)

Measure Category	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Additional Measures	6,422,207	87%	5,587,320	76%	4,246,363	15
Appliance	24,200	87%	21,054	76%	16,001	11
Building Shell	657,922	87%	572,392	76%	435,018	16
Compressed Air	6,932,511	100%	6,932,511	86%	5,961,960	15
Direct Install	10,645,052	97%	10,325,700	76%	7,847,532	12
Electronics	10,450	87%	9,092	76%	6,910	4
Energy Management	52,046,333	100%	52,046,333	89%	46,321,236	3
Energy Manager Co-Funding	0	0%	0	0%	0	0
Farm & Dairy	36,201	90%	32,581	79%	25,739	5
Food Service Equipment	2,484,334	87%	2,161,370	76%	1,642,641	7
HVAC	31,267,680	100%	31,267,680	57%	17,822,578	16
Irrigation	1,794,411	90%	1,614,970	79%	1,275,826	12
Lighting	49,438,403	100%	49,438,403	91%	44,988,947	14
Motors	8,812,766	91%	8,019,617	90%	7,217,655	15
Oil & Gas	42,711	87%	37,158	76%	28,240	15
Refrigeration	6,416,038	100%	6,416,038	51%	3,272,179	15
All	**177,031,219**	**99%**	**174,482,220**	**81%**	**141,108,826**	**11**

Table 4 - Benefit/Cost Ratios by Measure Category (High Participation)

Measure Category	PTRC	TRC	UCT	RIM	PCT
Additional Measures	1.22	1.10	2.74	0.57	2.01
Appliance	0.37	0.34	0.56	0.25	1.31
Building Shell	0.53	0.48	0.86	0.34	1.32
Compressed Air	1.71	1.56	2.42	0.55	3.20
Direct Install	4.43	4.03	0.82	0.29	n/a
Electronics	0.26	0.24	0.35	0.18	1.37
Energy Management	1.72	1.56	1.49	0.28	14.26
Energy Manager Co-Funding	n/a	n/a	n/a	n/a	n/a
Farm & Dairy	0.23	0.21	0.51	0.22	0.87
Food Service Equipment	0.53	0.48	0.94	0.27	1.82
HVAC	1.15	1.05	1.96	0.49	2.15
Irrigation	1.15	1.05	1.52	0.39	3.50
Lighting	1.05	0.96	2.26	0.40	2.73
Motors	1.69	1.54	3.42	0.59	2.99
Oil & Gas	0.98	0.89	1.25	0.45	2.24
Refrigeration	1.05	0.95	1.52	0.48	1.84
All	**1.22**	**1.11**	**1.86**	**0.42**	**2.92**

The tables below provide cost-effectiveness results for the combination of all delivery channels beginning with overall PY2019 results followed by the individual measure category results.

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results - PY2019 (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0426	$47,598,727	$58,187,320	$10,588,593	1.22
Total Resource Cost Test (TRC) No Adder	$0.0426	$47,598,727	$52,897,563	$5,298,837	1.11
Utility Cost Test (UCT)	$0.0255	$28,478,634	$52,897,563	$24,418,930	1.86
Rate Impact Test (RIM)		$126,971,673	$52,897,563	-$74,074,110	0.42
Participant Cost Test (PCT)		$49,370,624	$143,949,327	$94,578,703	2.92
Lifecycle Revenue Impacts ($/kWh)					$0.0000175121
Discounted Participant Payback (years)					2.70

Table 6 – WSB Measure Category Level Cost-Effectiveness Results – Additional Measures (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0430	$1,983,122	$2,409,678	$426,556	1.22
Total Resource Cost Test (TRC) No Adder	$0.0430	$1,983,122	$2,190,617	$207,494	1.10
Utility Cost Test (UCT)	$0.0174	$799,593	$2,190,617	$1,391,024	2.74
Rate Impact Test (RIM)		$3,857,055	$2,190,617	-$1,666,438	0.57
Participant Cost Test (PCT)		$2,267,428	$4,562,693	$2,295,264	2.01
Lifecycle Revenue Impacts ($/kWh)					$0.0000045143
Discounted Participant Payback (years)					7.32

Table 7 – WSB Measure Category Level Cost-Effectiveness Results – Appliance (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1219	$16,775	$6,278	-$10,497	0.37
Total Resource Cost Test (TRC) No Adder	$0.1219	$16,775	$5,708	-$11,068	0.34
Utility Cost Test (UCT)	$0.0744	$10,232	$5,708	-$4,524	0.56
Rate Impact Test (RIM)		$23,211	$5,708	-$17,503	0.25
Participant Cost Test (PCT)		$19,118	$25,064	$5,946	1.31
Lifecycle Revenue Impacts ($/kWh)					$0.0000000659
Discounted Participant Payback (years)					9.10

Table 8 – WSB Measure Category Level Cost-Effectiveness Results – Building Shell (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1097	$542,214	$285,262	-$256,953	0.53
Total Resource Cost Test (TRC) No Adder	$0.1097	$542,214	$259,329	-$282,885	0.48
Utility Cost Test (UCT)	$0.0609	$301,053	$259,329	-$41,725	0.86
Rate Impact Test (RIM)		$768,039	$259,329	-$508,711	0.34
Participant Cost Test (PCT)		$669,150	$881,849	$212,699	1.32
Lifecycle Revenue Impacts ($/kWh)					$0.0000012884
Discounted Participant Payback (years)					13.03

Table 9 – WSB Measure Category Level Cost-Effectiveness Results – Compressed Air (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0305	$1,975,575	$3,383,225	$1,407,650	1.71
Total Resource Cost Test (TRC) No Adder	$0.0305	$1,975,575	$3,075,659	$1,100,084	1.56
Utility Cost Test (UCT)	$0.0197	$1,272,427	$3,075,659	$1,803,233	2.42
Rate Impact Test (RIM)		$5,565,151	$3,075,659	-$2,489,492	0.55
Participant Cost Test (PCT)		$1,832,427	$5,864,279	$4,031,852	3.20
Lifecycle Revenue Impacts ($/kWh)					$0.0000067439
Discounted Participant Payback (years)					2.64

Table 10 – WSB Measure Category Level Cost-Effectiveness Results – Direct Install (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0108	$776,776	$3,444,728	$2,667,952	4.43
Total Resource Cost Test (TRC) No Adder	$0.0108	$776,776	$3,131,571	$2,354,795	4.03
Utility Cost Test (UCT)	$0.0531	$3,831,498	$3,131,571	-$699,927	0.82
Rate Impact Test (RIM)		$10,643,729	$3,131,571	-$7,512,159	0.29
Participant Cost Test (PCT)		$0	$12,018,185	$12,018,185	n/a
Lifecycle Revenue Impacts ($/kWh)					$0.0000257437
Discounted Participant Payback (years)					n/a

Table 11 – WSB Measure Category Level Cost-Effectiveness Results – Electronics (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1380	$3,432	$903	-$2,529	0.26
Total Resource Cost Test (TRC) No Adder	$0.1380	$3,432	$821	-$2,611	0.24
Utility Cost Test (UCT)	$0.0936	$2,328	$821	-$1,508	0.35
Rate Impact Test (RIM)		$4,669	$821	-$3,848	0.18
Participant Cost Test (PCT)		$3,240	$4,438	$1,198	1.37
Lifecycle Revenue Impacts ($/kWh)					$0.0000000479
Discounted Participant Payback (years)					3.16

Table 12 – WSB Measure Category Level Cost-Effectiveness Results – Energy Management (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0208	$2,651,560	$4,561,029	$1,909,469	1.72
Total Resource Cost Test (TRC) No Adder	$0.0208	$2,651,560	$4,146,390	$1,494,830	1.56
Utility Cost Test (UCT)	$0.0218	$2,785,202	$4,146,390	$1,361,188	1.49
Rate Impact Test (RIM)		$14,793,706	$4,146,390	-$10,647,316	0.28
Participant Cost Test (PCT)		$1,019,421	$14,533,628	$13,514,206	14.26
Lifecycle Revenue Impacts ($/kWh)					$0.0001893922
Discounted Participant Payback (years)					n/a

Table 13 – WSB Measure Category Level Cost-Effectiveness Results – Energy Mgr. Co-Fund (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	n/a	$9,199	$0	-$9,199	n/a
Total Resource Cost Test (TRC) No Adder	n/a	$9,199	$0	-$9,199	n/a
Utility Cost Test (UCT)	n/a	$709,077	$0	-$709,077	n/a
Rate Impact Test (RIM)		$9,199	$0	-$9,199	n/a
Participant Cost Test (PCT)		$0	$0	$0	n/a
Lifecycle Revenue Impacts ($/kWh)					n/a
Discounted Participant Payback (years)					n/a

Table 14 – WSB Measure Category Level Cost-Effectiveness Results – Farm & Dairy (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1661	$18,851	$4,252	-$14,599	0.23
Total Resource Cost Test (TRC) No Adder	$0.1661	$18,851	$3,866	-$14,985	0.21
Utility Cost Test (UCT)	$0.0667	$7,573	$3,866	-$3,708	0.51
Rate Impact Test (RIM)		$17,607	$3,866	-$13,741	0.22
Participant Cost Test (PCT)		$18,948	$16,392	-$2,556	0.87
Lifecycle Revenue Impacts ($/kWh)					$0.0000001283
Discounted Participant Payback (years)					8.09

Table 15 – WSB Measure Category Level Cost-Effectiveness Results – Food Service Equip. (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0753	$733,368	$389,722	-$343,647	0.53
Total Resource Cost Test (TRC) No Adder	$0.0753	$733,368	$354,292	-$379,076	0.48
Utility Cost Test (UCT)	$0.0387	$376,558	$354,292	-$22,266	0.94
Rate Impact Test (RIM)		$1,293,383	$354,292	-$939,090	0.27
Participant Cost Test (PCT)		$800,121	$1,457,630	$657,509	1.82
Lifecycle Revenue Impacts ($/kWh)					$0.0000058518
Discounted Participant Payback (years)					3.95

Table 16 – WSB Measure Category Level Cost-Effectiveness Results – HVAC (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0585	$11,843,980	$13,677,431	$1,833,451	1.15
Total Resource Cost Test (TRC) No Adder	$0.0585	$11,843,980	$12,434,028	$590,048	1.05
Utility Cost Test (UCT)	$0.0314	$6,359,285	$12,434,028	$6,074,743	1.96
Rate Impact Test (RIM)		$25,491,582	$12,434,028	-$13,057,554	0.49
Participant Cost Test (PCT)		$17,778,607	$38,214,544	$20,435,936	2.15
Lifecycle Revenue Impacts ($/kWh)					$0.0000330703
Discounted Participant Payback (years)					9.76

Table 17 – WSB Measure Category Level Cost-Effectiveness Results – Irrigation (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0450	$527,782	$607,587	$79,805	1.15
Total Resource Cost Test (TRC) No Adder	$0.0450	$527,782	$552,352	$24,570	1.05
Utility Cost Test (UCT)	$0.0309	$362,632	$552,352	$189,720	1.52
Rate Impact Test (RIM)		$1,403,141	$552,352	-$850,789	0.39
Participant Cost Test (PCT)		$424,505	$1,487,308	$1,062,803	3.50
Lifecycle Revenue Impacts ($/kWh)					$0.0000029156
Discounted Participant Payback (years)					2.43

Table 18 – WSB Measure Category Level Cost-Effectiveness Results – Lighting (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0481	$22,348,602	$23,510,083	$1,161,482	1.05
Total Resource Cost Test (TRC) No Adder	$0.0481	$22,348,602	$21,372,803	-$975,798	0.96
Utility Cost Test (UCT)	$0.0204	$9,470,996	$21,372,803	$11,901,807	2.26
Rate Impact Test (RIM)		$53,337,810	$21,372,803	-$31,965,006	0.40
Participant Cost Test (PCT)		$19,408,204	$52,989,150	$33,580,946	2.73
Lifecycle Revenue Impacts ($/kWh)					$0.0000930707
Discounted Participant Payback (years)					3.83

Table 19 – WSB Measure Category Level Cost-Effectiveness Results – Motors (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0306	$2,393,114	$4,051,650	$1,658,536	1.69
Total Resource Cost Test (TRC) No Adder	$0.0306	$2,393,114	$3,683,318	$1,290,204	1.54
Utility Cost Test (UCT)	$0.0137	$1,076,328	$3,683,318	$2,606,990	3.42
Rate Impact Test (RIM)		$6,273,177	$3,683,318	-$2,589,859	0.59
Participant Cost Test (PCT)		$2,130,856	$6,375,261	$4,244,405	2.99
Lifecycle Revenue Impacts ($/kWh)					$0.0000065272
Discounted Participant Payback (years)					3.54

Table 20 – WSB Measure Category Level Cost-Effectiveness Results – Oil & Gas (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0530	$16,234	$15,874	-$679,146	0.98
Total Resource Cost Test (TRC) No Adder	$0.0530	$16,234	$14,431	-$680,589	0.89
Utility Cost Test (UCT)	$0.0376	$11,511	$14,431	-$675,867	1.25
Rate Impact Test (RIM)		$31,845	$14,431	-$696,200	0.45
Participant Cost Test (PCT)		$14,898	$33,355	$18,456	2.24
Lifecycle Revenue Impacts ($/kWh)					$0.0000018860
Discounted Participant Payback (years)					5.06

Table 21 – WSB Measure Category Level Cost-Effectiveness Results – Refrigeration (High Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0495	$1,758,142	$1,839,618	$81,476	1.05
Total Resource Cost Test (TRC) No Adder	$0.0495	$1,758,142	$1,672,380	-$85,762	0.95
Utility Cost Test (UCT)	$0.0310	$1,102,339	$1,672,380	$570,041	1.52
Rate Impact Test (RIM)		$3,458,371	$1,672,380	-$1,785,991	0.48
Participant Cost Test (PCT)		$2,983,700	$5,485,554	$2,501,854	1.84
Lifecycle Revenue Impacts ($/kWh)					$0.0000048382
Discounted Participant Payback (years)					13.00

Exhibit D

wattsmart Business Portfolio
Sensitivity Analysis
(-10% Participation)

NAVIGANT

Memorandum

To: Nicole Karpavich, PacifiCorp

From: David Basak, Navigant

Date: February 5, 2019

Re: Cost Effectiveness for the Utah Wattsmart Business Program – Low (-10%) Participation

Navigant has developed this memo in response to PacifiCorp's proposed Wattsmart Business Program cost-effectiveness modeling needs in the state of Utah. Each scenario is analyzed using modeled assumptions provided by PacifiCorp. These scenarios utilize the following assumptions:

- **Scenarios:** Ran cost-effectiveness for program year 2019 only.
- ***Avoided Costs:*** Navigant performed a custom analysis of calculating avoided costs by using the *2017 D*ecrement and applied against Utah specific commercial, industrial, and irrigation end-use specific load shapes.
- ***Modeling Inputs:*** Measure category savings provided by PacifiCorp in the file *UT In House-Cascade CE 2019 v3.xlsx*.
- ***Energy Rates:*** Utilized the rates provided by PacifiCorp for PY2017 and applied an escalation of 2.22% to arrive at estimated energy rates for PY2019.
- ***Line Loss Factors:*** Commercial, industrial and irrigation line loss factor utilized throughout the analysis.

This memo will begin by addressing the inputs used in the analysis of the Utah Wattsmart Business Program. The cost-effectiveness inputs are as follows:

1375 Walnut Street
Suite 100 | Boulder, CO 80302
303.728.2500 main
navigant.com

Table 1 - Utility Inputs

Parameter	PY2019
Discount Rate	6.57%
Commercial Line Loss	8.71%
Industrial Line Loss	5.85%
Irrigation Line Loss	9.24%
Commercial Energy Rate ($/kWh)[1]	$0.0881
Industrial Energy Rate ($/kWh)[1]	$0.0619
Irrigation Energy Rate ($/kWh)[1]	$0.0828
Inflation Rate	2.22%

[1] Future rates determined using a 2.22% annual escalator.

Table 2 –Program Costs by Measure Category (Low Participation)

Measure Category	Program Admin Delivery	Utility Admin	Engineering/ Inspection Costs	Incentives	Total Utility Costs	Gross Customer Costs
Additional Measures	$42,636	$83,770	$133,471	$441,586	$701,462	$1,855,169
Appliance	$2,140	$106	$0	$6,534	$8,780	$15,642
Building Shell	$15,562	$7,405	$10,692	$218,777	$252,436	$547,487
Compressed Air	$221,378	$71,324	$106,986	$714,059	$1,113,747	$1,499,258
Direct Install	$773,056	$3,720	$0	$2,499,318	$3,276,094	$0
Electronics	$924	$46	$0	$1,112	$2,081	$2,651
Energy Management	$498,431	$5,037	$1,240,808	$851,667	$2,595,942	$834,072
Energy Manager Co-Funding	$0	$9,199	$0	$572,627	$581,826	$0
Farm & Dairy	$3,797	$85	$0	$3,020	$6,902	$15,503
Food Service Equipment	$55,926	$28,263	$41,087	$205,594	$330,871	$654,645
HVAC	$864,913	$348,366	$496,895	$3,803,819	$5,513,992	$14,546,133
Irrigation	$188,224	$4,199	$0	$139,262	$331,685	$347,323
Lighting	$4,123,136	$343,275	$220,725	$3,914,068	$8,601,204	$15,879,440
Motors	$233,785	$94,046	$147,512	$491,715	$967,058	$1,743,427
Oil & Gas	$4,911	$0	$0	$5,400	$10,311	$12,190
Refrigeration	$8,496	$87,404	$140,556	$708,451	$944,906	$2,441,209
All	**$7,037,315**	**$1,086,243**	**$2,538,733**	**$14,577,007**	**$25,239,299**	**$40,394,147**

Table 3 – Program Savings by Measure Category (Low Participation)

Measure Category	Gross kWh Savings	Realization Rate	Adjusted Gross kWh Savings	Net to Gross Ratio	Net kWh Savings	Measure Life
Additional Measures	5,254,533	87%	4,571,444	76%	3,474,297	15
Appliance	19,800	87%	17,226	76%	13,092	11
Building Shell	538,300	87%	468,321	76%	355,924	16
Compressed Air	5,672,055	100%	5,672,055	86%	4,877,967	15
Direct Install	8,709,588	97%	8,448,300	76%	6,420,708	12
Electronics	8,550	87%	7,439	76%	5,653	4
Energy Management	42,583,363	100%	42,583,363	89%	37,899,193	3
Energy Manager Co-Funding	0	0%	0	0%	0	0
Farm & Dairy	29,619	90%	26,657	79%	21,059	5
Food Service Equipment	2,032,637	87%	1,768,394	76%	1,343,979	7
HVAC	25,582,648	100%	25,582,648	57%	14,582,109	16
Irrigation	1,468,155	90%	1,321,339	79%	1,043,858	12
Lighting	40,449,603	100%	40,449,603	91%	36,809,138	14
Motors	7,210,445	91%	6,561,504	90%	5,905,354	15
Oil & Gas	34,945	87%	30,402	76%	23,106	15
Refrigeration	5,249,486	100%	5,249,486	51%	2,677,238	15
All	**144,843,725**	**99%**	**142,758,180**	**81%**	**115,452,676**	**11**

Table 4 - Benefit/Cost Ratios by Measure Category (Low Participation)

Measure Category	PTRC	TRC	UCT	RIM	PCT
Additional Measures	1.18	1.07	2.56	0.56	2.01
Appliance	0.36	0.33	0.53	0.24	1.31
Building Shell	0.52	0.47	0.84	0.33	1.32
Compressed Air	1.64	1.49	2.26	0.54	3.20
Direct Install	3.63	3.30	0.78	0.29	n/a
Electronics	0.25	0.23	0.32	0.17	1.37
Energy Management	1.50	1.36	1.31	0.27	14.26
Energy Manager Co-Funding	n/a	n/a	n/a	n/a	n/a
Farm & Dairy	0.22	0.20	0.46	0.21	0.87
Food Service Equipment	0.51	0.47	0.88	0.27	1.82
HVAC	1.12	1.02	1.84	0.48	2.15
Irrigation	1.06	0.97	1.36	0.38	3.50
Lighting	1.01	0.91	2.03	0.39	2.73
Motors	1.62	1.47	3.12	0.58	2.99
Oil & Gas	0.92	0.83	1.15	0.44	2.24
Refrigeration	1.02	0.92	1.45	0.48	1.84
All	**1.16**	**1.06**	**1.71**	**0.41**	**2.92**

The tables below provide cost-effectiveness results for the combination of all delivery channels beginning with overall PY2019 results followed by the individual measure category results.

Table 5 – Wattsmart Business Program Level Cost-Effectiveness Results - PY2019 (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0447	$40,883,011	$47,607,807	$6,724,796	1.16
Total Resource Cost Test (TRC) No Adder	$0.0447	$40,883,011	$43,279,825	$2,396,813	1.06
Utility Cost Test (UCT)	$0.0276	$25,239,299	$43,279,825	$18,040,526	1.71
Rate Impact Test (RIM)		$105,824,513	$43,279,825	-$62,544,688	0.41
Participant Cost Test (PCT)		$40,394,147	$117,776,722	$77,382,575	2.92
Lifecycle Revenue Impacts ($/kWh)					$0.0000147864
Discounted Participant Payback (years)					2.70

Table 6 – WSB Measure Category Level Cost-Effectiveness Results – Additional Measures (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0443	$1,669,805	$1,971,555	$301,750	1.18
Total Resource Cost Test (TRC) No Adder	$0.0443	$1,669,805	$1,792,323	$122,518	1.07
Utility Cost Test (UCT)	$0.0186	$701,462	$1,792,323	$1,090,860	2.56
Rate Impact Test (RIM)		$3,203,023	$1,792,323	-$1,410,700	0.56
Participant Cost Test (PCT)		$1,855,169	$3,733,112	$1,877,944	2.01
Lifecycle Revenue Impacts ($/kWh)					$0.0000038215
Discounted Participant Payback (years)					7.32

Table 7 – WSB Measure Category Level Cost-Effectiveness Results – Appliance (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1256	$14,134	$5,137	-$8,997	0.36
Total Resource Cost Test (TRC) No Adder	$0.1256	$14,134	$4,670	-$9,464	0.33
Utility Cost Test (UCT)	$0.0780	$8,780	$4,670	-$4,110	0.53
Rate Impact Test (RIM)		$19,399	$4,670	-$14,729	0.24
Participant Cost Test (PCT)		$15,642	$20,507	$4,865	1.31
Lifecycle Revenue Impacts ($/kWh)					$0.0000000554
Discounted Participant Payback (years)					9.10

Table 8 – WSB Measure Category Level Cost-Effectiveness Results – Building Shell (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1113	$449,750	$233,396	-$216,354	0.52
Total Resource Cost Test (TRC) No Adder	$0.1113	$449,750	$212,178	-$237,572	0.47
Utility Cost Test (UCT)	$0.0624	$252,436	$212,178	-$40,258	0.84
Rate Impact Test (RIM)		$634,516	$212,178	-$422,338	0.33
Participant Cost Test (PCT)		$547,487	$721,513	$174,026	1.32
Lifecycle Revenue Impacts ($/kWh)					$0.0000010696
Discounted Participant Payback (years)					13.03

Table 9 – WSB Measure Category Level Cost-Effectiveness Results – Compressed Air (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0319	$1,689,050	$2,768,094	$1,079,043	1.64
Total Resource Cost Test (TRC) No Adder	$0.0319	$1,689,050	$2,516,449	$827,398	1.49
Utility Cost Test (UCT)	$0.0210	$1,113,747	$2,516,449	$1,402,702	2.26
Rate Impact Test (RIM)		$4,625,976	$2,516,449	-$2,109,528	0.54
Participant Cost Test (PCT)		$1,499,258	$4,798,046	$3,298,788	3.20
Lifecycle Revenue Impacts ($/kWh)					$0.0000057146
Discounted Participant Payback (years)					2.64

Table 10 – WSB Measure Category Level Cost-Effectiveness Results – Direct Install (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0132	$776,776	$2,818,413	$2,041,638	3.63
Total Resource Cost Test (TRC) No Adder	$0.0132	$776,776	$2,562,194	$1,785,418	3.30
Utility Cost Test (UCT)	$0.0555	$3,276,094	$2,562,194	-$713,900	0.78
Rate Impact Test (RIM)		$8,849,738	$2,562,194	-$6,287,544	0.29
Participant Cost Test (PCT)		$0	$9,833,060	$9,833,060	n/a
Lifecycle Revenue Impacts ($/kWh)					$0.0000215471
Discounted Participant Payback (years)					n/a

Table 11 – WSB Measure Category Level Cost-Effectiveness Results – Electronics (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1466	$2,984	$739	-$2,245	0.25
Total Resource Cost Test (TRC) No Adder	$0.1466	$2,984	$672	-$2,313	0.23
Utility Cost Test (UCT)	$0.1023	$2,081	$672	-$1,410	0.32
Rate Impact Test (RIM)		$3,996	$672	-$3,325	0.17
Participant Cost Test (PCT)		$2,651	$3,631	$980	1.37
Lifecycle Revenue Impacts ($/kWh)					$0.0000000413
Discounted Participant Payback (years)					3.16

Table 12 – WSB Measure Category Level Cost-Effectiveness Results – Energy Management (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0238	$2,486,599	$3,731,751	$1,245,152	1.50
Total Resource Cost Test (TRC) No Adder	$0.0238	$2,486,599	$3,392,501	$905,902	1.36
Utility Cost Test (UCT)	$0.0248	$2,595,942	$3,392,501	$796,558	1.31
Rate Impact Test (RIM)		$12,421,082	$3,392,501	-$9,028,581	0.27
Participant Cost Test (PCT)		$834,072	$11,891,150	$11,057,078	14.26
Lifecycle Revenue Impacts ($/kWh)					$0.0001591844
Discounted Participant Payback (years)					n/a

Table 13 – WSB Measure Category Level Cost-Effectiveness Results – Energy Mgr. Co-Fund (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	n/a	$9,199	$0	-$9,199	n/a
Total Resource Cost Test (TRC) No Adder	n/a	$9,199	$0	-$9,199	n/a
Utility Cost Test (UCT)	n/a	$581,826	$0	-$581,826	n/a
Rate Impact Test (RIM)		$9,199	$0	-$9,199	n/a
Participant Cost Test (PCT)		$0	$0	$0	n/a
Lifecycle Revenue Impacts ($/kWh)					n/a
Discounted Participant Payback (years)					n/a

Table 14 – WSB Measure Category Level Cost-Effectiveness Results – Farm & Dairy (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.1737	$16,129	$3,479	-$12,650	0.22
Total Resource Cost Test (TRC) No Adder	$0.1737	$16,129	$3,163	-$12,966	0.20
Utility Cost Test (UCT)	$0.0743	$6,902	$3,163	-$3,739	0.46
Rate Impact Test (RIM)		$15,111	$3,163	-$11,949	0.21
Participant Cost Test (PCT)		$15,503	$13,412	-$2,091	0.87
Lifecycle Revenue Impacts ($/kWh)					$0.0000001115
Discounted Participant Payback (years)					8.09

Table 15 – WSB Measure Category Level Cost-Effectiveness Results – Food Service Equip. (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0782	$622,806	$318,863	-$303,943	0.51
Total Resource Cost Test (TRC) No Adder	$0.0782	$622,806	$289,876	-$332,931	0.47
Utility Cost Test (UCT)	$0.0415	$330,871	$289,876	-$40,995	0.88
Rate Impact Test (RIM)		$1,081,000	$289,876	-$791,124	0.27
Participant Cost Test (PCT)		$654,645	$1,192,606	$537,962	1.82
Lifecycle Revenue Impacts ($/kWh)					$0.0000049297
Discounted Participant Payback (years)					3.95

Table 16 – WSB Measure Category Level Cost-Effectiveness Results – HVAC (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0604	$10,001,470	$11,190,625	$1,189,155	1.12
Total Resource Cost Test (TRC) No Adder	$0.0604	$10,001,470	$10,173,295	$171,826	1.02
Utility Cost Test (UCT)	$0.0333	$5,513,992	$10,173,295	$4,659,303	1.84
Rate Impact Test (RIM)		$21,167,689	$10,173,295	-$10,994,394	0.48
Participant Cost Test (PCT)		$14,546,133	$31,266,445	$16,720,312	2.15
Lifecycle Revenue Impacts ($/kWh)					$0.0000278450
Discounted Participant Payback (years)					9.76

Table 17 – WSB Measure Category Level Cost-Effectiveness Results – Irrigation (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0486	$466,808	$497,117	$30,309	1.06
Total Resource Cost Test (TRC) No Adder	$0.0486	$466,808	$451,924	-$14,884	0.97
Utility Cost Test (UCT)	$0.0345	$331,685	$451,924	$120,239	1.36
Rate Impact Test (RIM)		$1,183,010	$451,924	-$731,086	0.38
Participant Cost Test (PCT)		$347,323	$1,216,888	$869,566	3.50
Lifecycle Revenue Impacts ($/kWh)					$0.0000025054
Discounted Participant Payback (years)					2.43

Table 18 – WSB Measure Category Level Cost-Effectiveness Results – Lighting (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0504	$19,137,426	$19,235,523	$98,097	1.01
Total Resource Cost Test (TRC) No Adder	$0.0504	$19,137,426	$17,486,839	-$1,650,587	0.91
Utility Cost Test (UCT)	$0.0226	$8,601,204	$17,486,839	$8,885,635	2.03
Rate Impact Test (RIM)		$44,492,233	$17,486,839	-$27,005,394	0.39
Participant Cost Test (PCT)		$15,879,440	$43,354,759	$27,475,319	2.73
Lifecycle Revenue Impacts ($/kWh)					$0.0000786301
Discounted Participant Payback (years)					3.83

Table 19 – WSB Measure Category Level Cost-Effectiveness Results – Motors (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0319	$2,044,428	$3,314,986	$1,270,558	1.62
Total Resource Cost Test (TRC) No Adder	$0.0319	$2,044,428	$3,013,624	$969,196	1.47
Utility Cost Test (UCT)	$0.0151	$967,058	$3,013,624	$2,046,566	3.12
Rate Impact Test (RIM)		$5,219,025	$3,013,624	-$2,205,402	0.58
Participant Cost Test (PCT)		$1,743,427	$5,216,123	$3,472,695	2.99
Lifecycle Revenue Impacts ($/kWh)					$0.0000054858
Discounted Participant Payback (years)					3.54

Table 20 – WSB Measure Category Level Cost-Effectiveness Results – Oil & Gas (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0565	$14,175	$12,988	-$679,974	0.92
Total Resource Cost Test (TRC) No Adder	$0.0565	$14,175	$11,807	-$681,155	0.83
Utility Cost Test (UCT)	$0.0411	$10,311	$11,807	-$677,290	1.15
Rate Impact Test (RIM)		$26,948	$11,807	-$693,927	0.44
Participant Cost Test (PCT)		$12,190	$27,290	$15,101	2.24
Lifecycle Revenue Impacts ($/kWh)					$0.0000018798
Discounted Participant Payback (years)					5.06

Table 21 – WSB Measure Category Level Cost-Effectiveness Results – Refrigeration (Low Participation)

Cost-Effectiveness Test	Levelized $/kWh	Costs	Benefits	Net Benefits	Benefit/Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	$0.0510	$1,481,472	$1,505,142	$23,670	1.02
Total Resource Cost Test (TRC) No Adder	$0.0510	$1,481,472	$1,368,311	-$113,161	0.92
Utility Cost Test (UCT)	$0.0325	$944,906	$1,368,311	$423,405	1.45
Rate Impact Test (RIM)		$2,872,568	$1,368,311	-$1,504,257	0.48
Participant Cost Test (PCT)		$2,441,209	$4,488,181	$2,046,971	1.84
Lifecycle Revenue Impacts ($/kWh)					$0.0000040750
Discounted Participant Payback (years)					13.00

CERTIFICATE OF SERVICE

Advice No. 19-01
Docket No. 19-035-T01

I hereby certify that on February 8, 2019, a true and correct copy of the foregoing was served by electronic mail to the following:

Utah Office of Consumer Services	
Michele Beck	mbeck@utah.gov
Division of Public Utilities	
Erika Tedder	etedder@utah.gov
Rocky Mountain Power	
Data Request Response Center	datarequest@pacificorp.com
Michael Snow	michael.snow@pacificorp.com
Jana Saba	jana.saba@pacificorp.com utahdockets@pacificorp.com

Jennifer Angell
Supervisor, Regulatory Operations