

November 10, 2021

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. 21-07 Proposed Changes to Schedule 140, Non-Residential Energy Efficiency Program Docket No. 21-035-T13

Enclosed for electronic filing are the proposed tariff sheets associated with Tariff P.S.C.U. No. 51 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 January 1, 2022 for these changes.

First Revision of Sheet No. 140.2	Schedule 140	Non-Residential Energy Efficiency
First Revision of Sheet No. 140.4	Schedule 140	Non-Residential Energy Efficiency
First Revision of Sheet No. 140.5	Schedule 140	Non-Residential Energy Efficiency
First Revision of Sheet No. 140.7	Schedule 140	Non-Residential Energy Efficiency
First Revision of Sheet No. 140.8	Schedule 140	Non-Residential Energy Efficiency
First Revision of Sheet No. 140.9	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. These tariff changes align with targets illustrated in the table below, filed in the Demand Side Management November 1st Deferred Account and Forecast Report on November 1, 2021, in Docket No. 21-035-45.

2022 Budget and Savings Forecast

***	2022 MWh Savings Forecast	2022 Budget Forecast
Wattsmart Business	194,904	\$36,000,000

DESCRIPTION OF CHANGES

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

- 1. Add new offerings for Whole Building New Construction.
- 2. Add new offerings for Controlled Environment Agriculture lighting.

Public Service Commission of Utah November 10, 2021 Page 2

- 3. Miscellaneous updates to incentives and eligibility criteria for the following measure categories:
 - a. Lighting;
 - b. Motors;
 - c. HVAC Equipment;
 - d. Building Shell;
 - e. Irrigation;
 - f. Small Business Enhanced;
 - g. Mid-Market Lighting; and
 - h. Whole Building New Construction.

WHOLE BUILDING NEW CONSTRUCTION

To better engage investors, owners, developers, general contractors, and specialty contractors in the commercial and industrial real estate new construction market, the Company has developed a new offering for Whole Building New Construction (WBNC). This measure offering incentivizes new construction projects from the design phase through the construction and performance phases of the building, and is intended to move the market towards high performance buildings.

The Early Engagement Design Charette is intended to establish energy efficient targets for operation of the completed building with the assistance of energy modeling, identify efficient mechanical, electrical, plumbing and building envelope systems that will deliver the owner's project requirements, and ensure efficient operation of these systems. The Design Phase will incentivize the selection of energy efficient options. The Construction Phase will offer incentives based on the equipment installed and actual performance verified by Savings Verification Reports. The Performance Phase will offer incentives based on verified energy savings performance from meter data up to two years after commissioning is completed.

The proposed design and offerings were developed with advice and feedback from the Utah Commercial Real Estate task force. This collaborative process allowed the Company to solicit advice from key stakeholders in Utah to create a compelling program for the market. Incentives will vary by building size and by participation path as indicated by the tables below. The new WBNC table with maximum "up to" amounts is being added to Schedule 140 as Table 15. The offered incentives table for WBNC will be managed on the Company's website.

Category	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive
Early Engagement Design Charrette		\$2,500/project
Design Phase	N/A	\$0.35/sq-ft
Construction Phase		\$0.24/kWh
Performance Phase		\$0.05/kWh

Maximum "up to" Incentives for Whole Building New Construction

Public Service Commission of Utah November 10, 2021 Page 3

		Currently	Proposed Offered Incentive			
Category	Minimum Requirements	Offered	Small	Medium	Large	
	-	Incentive	Building ¹	Building ²	Building ³	
Early Engagement	Requires design charrette at	N/A	\$1.500	\$2,000	\$2 500	
Design Charette	programming	11/21	\$1,500	\$2,000	φ2,500	
	Must engage with 3 rd party energy		\$0.35/sq-ft	\$0.25/sq-ft	\$0.15/sq-ft	
Design Phase	performance modelling support	N/A	up to	up to	up to	
			\$15,000	\$15,000	\$15,000	
	New Construction Base	N/A	\$0.17/kWb	\$0.15/kWb	\$0.12/kW/b	
	Efficiency Target	11/74	φ 0.1 //Κ WII	\$0.15/K WII	\$0.12/K W II	
	New Construction Energy Use					
Construction Phase	Intensity Target	N/A	\$0.20/kWh	\$0.17/kWh	\$0.15/kWh	
	(requires early engagement)					
	Early Engagement Bonus	NI/A	\$0.04/1-W/h	¢0.02/1-11/1	\$0.02/1-Wh	
	(must complete design charrette)	IN/A	\$0.04/K W Π	\$0.05/K W II	\$0.02/K W II	
			#0.05	/1 11 / 07		
Performance Phase		N/A	\$0.05	/kwh up to \$'/	5,000	

Currently Offered Incentives for Whole Building New Construction

MEASURE UPDATES

As a result of the Company's ongoing analysis of its offerings, including reviews of eligibility requirements, savings assumptions, and incentive levels, several proposed changes have been identified to improve Program offerings. The purpose of these changes is to better align with current measure research and market conditions, and cost-effectiveness thresholds. The sections below describe the proposed changes for each measure category. It should be noted that the sections and tables below only reference measures with proposed changes and do not constitute a comprehensive list of all Program offerings in each category. Current Program offerings that are not specifically mentioned in the sections below will remain unchanged.

Table 1a – Lighting System Retrofits

• **Controlled Environment Agriculture (CEA)** – It is proposed to add a new measure for CEA lighting with a maximum "up to" of \$0.05/kWh. Initially offered incentives will be split between fixtures and replacement lamps, set at \$0.05/kWh and \$0.03/kWh, respectively. CEA lighting is installed in facilities that grow plants to help produce high quality crops.

Maximum up to meentives for Englishing System Retronts		
Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive
Controlled Environment Agriculture	N/A	\$0.05/kWh

Maximum "up to" Incentives for Lighting System Retrofits

Currently Offere	d Incentives for	Lighting System	Retrofits
Equipment Type	Category	Currently Offered Incentive	Proposed Offered Incentive
Controlled Environment	Fixtures	N/A	\$0.05/kWh

N/A

\$0.03/kWh

Agriculture

Replacement Lamps

¹ Buildings less than 20,000 square feet are considered small.

² Buildings greater than or equal to 20,000 square feet and less than 75,000 square feet are considered medium.

³ Buildings greater than or equal to 75,000 square feet are considered large.

Table 1b - New Construction/Major Renovation (NCMR) Lighting Incentives

- Interior/Exterior Lighting All measure offerings for interior and exterior lighting are being replaced with the new WBNC program described above. However, to allow the market to transition to the new WBNC program, the Company will continue offering the existing interior/exterior measures until March 31, 2022.
- **Controlled Environment Agriculture** Add the new proposed measure offering for controlled environment agriculture lighting for NCMR with a maximum "up to" incentive of \$0.05/kWh. Initially offered incentives will be split between fixtures and replacement lamps, set at \$0.05/kWh and \$0.03/kWh, respectively.

1		J	
Equipment Type	Category	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive
	Troffer	\$10/Fixture	\$0/Fixture
	Linear Ambient	\$10/Fixture	\$0/Fixture
Interior Lighting	Highbay	\$20/Fixture	\$0/Fixture
8 8	Other (not listed above)	\$0.50/Fixture Wattage	\$0/Fixture Wattage
	Advanced Lighting Controls	\$0.80/W controlled	\$0/W controlled
Exterior Lighting	Advanced Lighting Controls	\$0.40/W controlled	\$0/W controlled
Controlled Environment	Fixtures	N/A	\$0.05/kWh
Agriculture	Replacement Lamps	N/A	\$0.03/kWh

Maximum "up to" Incentives for New Construction/Major Renovation Lighting

*The current Interior and Exterior Lighting incentives will be offered until March 31, 2022

	T (1 0))	a b b c c b c c b c c c c c c c c c c	D // T/	
('urrently ()ffered	Incentives for New	Construction/Maior	Renovation Li	ahtina
Currently Oncicu		Construction/ major	Itenovation Li	enune

Equipment Type	Category	Currently Offered Incentive	Proposed Offered Incentive
	Troffer	\$10/Fixture	\$0/Fixture
	Linear Ambient	\$10/Fixture	\$0/Fixture
Interior Lighting	Highbay	\$20/Fixture	\$0/Fixture
	Other (not listed above)	\$0.50/Fixture Wattage	\$0/Fixture Wattage
	Advanced Lighting Controls	\$0.80/W controlled	\$0/W controlled
Exterior Lighting	Advanced Lighting Controls	\$0.40/W controlled	\$0/W controlled
Controlled Environment	Fixtures	N/A	\$0.05/kWh
Agriculture	Replacement Lamps	N/A	\$0.03/kWh

*The current Interior and Exterior Lighting incentives will be offered until March 31, 2022

Table 2 – Motor Incentives

- Electronically Commutated Motors Increase the maximum "up to" and offered incentive from \$50/hp for HVAC applications to \$100/hp to better promote ECMs.
- Variable Frequency Drives (VFD) Increase the maximum "up to" and offered incentive amounts from \$65/hp to \$200/hp to better promote VFDs and account for higher incremental costs for this measure.

maximum up to incentives for wrotors			
Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive	
Electronically Commutated Motor	\$1/watt or \$50/hp	\$1/watt or \$100/hp	
Variable Frequency Drives	\$65/hp	\$200/hp	

Maximum "up to" Incentives for Motors

Currently Offered Incentives for Motors

Equipment Type	Minimum Requirements	Sub-Category	Currently Offered Incentive	Proposed Offered Incentive
Electronically Commutated	<u><</u> 1 hp	HVAC application	\$50/hp	\$100/hp
Motor (Retrofit only)	>1hp and \leq 10hp	HVAC application	N/A	\$100/hp
Variable Frequency Drives (HVAC fans and pumps)	<u>≤</u> 100 hp	HVAC fans and pumps	\$65/hp	\$200/hp

Table 3a – HVAC Incentives

• Heat Pump Loop – Increase the maximum "up to" and offered incentive from \$25/ton to \$125/ton to encourage more participation and account for higher incremental costs and deemed savings for this measure.

Maximu	Maximum "up to" incentives for HVAC			
Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive		
Heat Pump Loop	\$25/ton	\$125/ton		

Maximum "up to" Incentives for HVAC

Currently Offered Incentives for HVAC

Equipment Type	Minimum Requirements	Sub-Category	Currently Offered Incentive	Proposed Offered Incentive
Heat Pump Loop	All equipment sizes	Ground source, closed loop	\$25/ton	\$125/ton
		Groundwater source, open loop	\$25/ton	\$125/ton

Table 3b – Other HVAC Incentives

- Advanced Rooftop Unit (ARC) Control (Retrofit) Increase the maximum "up to" incentive from \$4,500 to \$6,500 for the retrofit category, and differentiate incentive offerings for ARC retrofits between gas-fired Rooftop Units (RTU) and heat pump RTUs to accommodate a higher incentive for heat pumps given that they capture more savings than controls in buildings with gas-fired RTUs. The current offered amounts for gas-fired RTUs will remain unchanged. The current offered amounts for heat pump RTUs will be increased as reflected in the table below.
- Advanced Rooftop Unit Control (New RTU) Increase the maximum "up to" incentive from \$2,800 to \$4,000 for the New RTU category, and differentiate incentive offerings for New RTUs between gas-fired and heat pumps to accommodate higher incentives for heat pumps in alignment with the proposed updates to the retrofit category. The current offered amounts for gas-fired RTUs will remain unchanged. The current offered amounts for heat pump RTUs will be increased as reflected in the table below.

Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive		
Advanced Rooftop Unit Control (Retrofit)	\$4,500	\$6,500		
Advanced Rooftop Unit Control (New RTU)	\$2,800	\$4,000		

Maximum "up to" Incentives for Other HVAC

E anim on t Tama	Size Denometers	Currently Offered Incentive		Proposed Offered Incentive	
Equipment Type	Size rarameters	Gas-fired RTU	Heat Pump RTU	Gas-fired RTU	Heat Pump RTU
Advanced Rooftop	\geq 5 tons and \leq 10 tons	\$2,000		No Change	\$2,900
	> 10 tons and ≤ 15 tons	\$2,800			\$4,000
(Retrofit)	> 15 tons and ≤ 20 tons	\$4,000			\$5,800
	> 20 tons	\$4,500			\$6,500
	≥ 5 tons and ≤ 10 tons	\$1	,200		\$1,700
Advanced Rooftop	$> 10 \text{ tons and} \le 15 \text{ tons}$ \$1,800		,800	No	\$2,600
(New RTU)	>15 tons and ≤ 20 tons	\$2,500		Change	\$3,600
	> 20 tons	\$2	2,800		\$4,000

Currently Offered Incentives for HVAC Equipment

Table 4a – Building Envelope Incentives (Retrofit)

- **Cool Roof** Decrease the maximum incentive from \$0.10/square foot to \$0.04/square foot to ensure this measure remains cost effective under current savings and costs assumptions.
- **Roof/Attic Insulation** Increase the maximum incentive from \$0.05/square foot to \$0.20/square foot to account for increased incremental costs and savings.
- **Wall Insulation** Increase the maximum incentive from \$0.07/square foot to \$0.15/square foot to account for increased incremental costs and savings.
- Windows Increase the maximum incentive from \$0.35/square foot to \$0.50/square foot to account for increased incremental costs and savings.

Maximum "up to" incentives for Building Envelope Retroitis			
Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive	
Cool Roof	\$0.10/square foot	\$0.04/square foot	
Roof/Attic Insulation	\$0.05/square foot	\$0.20/square foot	
Wall Insulation	\$0.07/square foot	\$0.15/square foot	
Windows	\$0.35/square foot	\$0.50/square foot	

Maximum "up to" Incentives for Building Envelope Retrofits

Currently Offered Incentives for Building Envelope Retrofits

Equipment Type	Sub-Category	Currently Offered Incentive	Proposed Offered Incentive
Cool Roof		\$0.05/square foot	\$0.04/square foot
Roof/Attic Insulation		\$0.05/square foot	\$0.20/square foot
Wall Insulation		\$0.07/square foot	\$0.15/square foot
Windows	Site-built Assembly	\$0.35/square foot	\$0.50/square foot

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

- **Cool Roof** Decrease the maximum incentive from \$0.10/square foot to \$0.02/square foot to maintain measure cost effectiveness.
- **Roof/Attic Insulation** Decrease the maximum incentive from \$0.05/square foot to \$0.03/square foot to maintain measure cost effectiveness.

Maximum up to incentives for Bunding Envelope Ketron			
Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive	
Cool Roof	\$0.10/square foot	\$0.02/square foot	
Roof/Attic Insulation	\$0.05/square foot	\$0.03/square foot	

Maximum "up to" Incentives for Building Envelope Retrofits

Currently Offered Incentives for Building Envelope Retrofits

Equipment Type	Currently Offered Incentive	Proposed Offered Incentive
Cool Roof	\$0.05/square foot	\$0.02/square foot
Roof/Attic Insulation	\$0.05/square foot	\$0.03/square foot

<u>Table 8a – Irrigation Incentives – Measures for Wheel Line, Hand Line, and Other Portable</u> <u>Systems (Retrofit Only)</u>

- **Sprinkler Replacement** Consolidate the new or rebuilt rotating and impact sprinkler offerings into a "Sprinkler Replacement" measure category, and decrease the maximum and offered incentive amounts from \$2.50 each to \$0.50 each in accordance with the most recent revision to unit energy savings in the Regional Technical Forum (RTF).
- Nozzle Replacement Increase the maximum and offered incentive amounts from \$0.50 each to \$1.50 each in accordance with the most recent revision to unit energy savings in the RTF.
- **Drain Replacement** Decrease the maximum and offered incentive amounts from \$3 each to \$2 each in accordance with the most recent revision to unit energy savings in the RTF.
- **Pipe Repair** Decrease the maximum and offered incentive amounts from \$10/repair to \$8/repair in accordance with the most recent revision to unit energy savings in the RTF.
- Leveler Replacement Decrease the maximum and offered incentive amounts from \$3 each to \$1 each in accordance with the most recent revision to unit energy savings in the RTF.

Maximum ⁶	"up to" Incentives for Irrigation Wheel Line, Hand Line, or Oth	er
	Portable Systems (Retrofits)	

Equipment Type	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive
Sprinkler Replacement	\$2.50	\$0.50
Nozzle Replacement	\$0.50	\$1.50
Drain Replacement	\$3	\$2
Pipe Repair	\$10	\$8
Leveler Replacement	\$3	\$1

Equipment Type	Sub-Category	Currently Offered Incentive	Proposed Offered Incentive
Sprinklor Doplacement	Rotating sprinkler	\$2.50	\$0.50
Sprinkler Replacement	Impact sprinkler	\$2.25	\$0.50
Nozzle Replacement	Replacement of worn nozzle	\$0.50	\$1.50
Drain Replacement	Replacing leaking drain	\$3	\$2
Pipe Repair	Cut & press or weld repair of leaking line	\$10	\$8
Leveler Replacement	Replacing leaking or malfunctioning leveler	\$3	\$1

Currently Offered Incentives for Irrigation Wheel Line, Hand Line, or Other **Portable Systems (Retrofits)**

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

- Pressure Regulator and Low Pressure Sprinkler Replace individual measure offerings with new packaged offerings to better align with the RTF.
- Sprinkler Replacement Package Add a sprinkler replacement package offering category with a maximum incentive of \$7 each. Initially offered incentives will be broken out between High Pressure, Mid-Elevation Spray Application (MESA), Low-Elevation Spray Application (LESA), Low-Elevation Precision Application (LEPA), and Mobile Drip Irrigation (MDI) categories:
 - High Pressure The initially offered incentive for high pressure sprinkler package replacements will be set at \$7 each.
 - MESA The initially offered incentive for MESA sprinkler package replacements will be set at \$4 each.
 - LESA/LEPA/MDI The initially offered incentives for LESA, LEPA, and MDI sprinkler package replacements will be set at \$2 each.

. . .

. .

Pivot/Linear Upgrade – Add an upgrade offering category with a maximum incentive of \$7 each. Incentives will be broken out between upgrades from high pressure to MESA, high pressure to LESA/LEPA/MDI, and MESA to LESA/LEPA/MDI, with initially offered incentives set at \$7, \$7, and \$5, respectively, for each upgrade type.

.....

	incentives for infigation i tvot	s and Lincal System	ns (ixen ones)
E.	auinmont Type	Current Maximum	Proposed Maximum "up to"

Maximum "up to" Incentives for Irrigation Pivo	ts and Linear S	ystems ((Retrofits)	
			Proposed	

Equipment Type	Current Maximum "up to" Incentive	Maximum "up to" Incentive	
Pressure regulator replacing new pressure regulator	\$3	\$0	
Low pressure sprinkler replacing impact sprinkler	\$3	\$0	
Low pressure sprinkler replacing worn low pressure sprinkler	\$1.50	\$0	
Sprinkler Replacement Package	N/A	\$7	
Pivot/Linear Upgrade	N/A	\$7	

Equipment Type	Sub-Category	Currently Offered Incentive	Proposed Offered Incentive
Pressure regulator	Replacing new pressure regulator of same design pressure or less	\$3	\$0
	Replacing impact sprinkler	\$3	\$0
Low Pressure Sprinkler	Replacing worn low pressure sprinkler	\$1.50	\$0
	High Pressure	N/A	\$7
Sprinkler Replacement Package	MESA	N/A	\$4
	LESA/LEPA/MDI	N/A	\$2
	High Pressure to MESA	N/A	\$7
Pivot/Linear Upgrade	High Pressure to LESA/LEPA/MDI	N/A	\$7
	MESA to LESA/LEPA/MDI	N/A	\$5

Currently Offered Incentives for Irrigation Pivots and Linear Systems (Retrofits)

Table 12 – Small Business Enhanced (Retrofit Only)

• Update the offering name from "Small Business Direct Installation" to "Small Business Enhanced" and increase the maximum customer co-pay to 50 percent. Increasing the maximum co-pay percentage will enable the Company to encourage small busines customers to utilize both lighting and non-lighting measures, while maintaining cost effectiveness. Customers who add non-lighting measures to their lighting project, such as smart thermostats or an HVAC Check-up, will have a lower co-pay and higher incentive percentage, while customers who only install lighting measures will have a higher co-pay and lower incentive percentage.

For example, customers who only install lighting measures may receive a 50 percent incentive with a required 50 percent co-pay for their project, whereas customers who install lighting measures plus one non-lighting measure may receive a 60 percent incentive with a required 40 percent co-pay for their project. The required co-pay percentages will be determined on a project-by-project basis dependent upon what measures customers choose to install.

<u>Table 13a – Mid-Market Incentives Lighting</u>

- A-Lamps, Reflector Lamps, and Decorative Lamps Maintain maximum incentive amounts, but reduce offered incentives for certain A-lamps, reflectors, and decorative lamps as reflected in the table below to account for reduced incremental costs.
- **Pin-based Lamps** Decrease the maximum "up to" incentive from \$15/Lamp to \$12/Lamp to maintain cost effectiveness. Currently offered incentive amounts will remain unchanged.
- **Downlight Kits** Modify equipment category title from "Recessed Downlight Kit" to "Downlight Kits" to better align with the DesignLights Consortium product category.
- Linear Replacement Lamps Modify equipment category title from "TLED Lamps" to "Linear Replacement Lamps" to better align with the DesignLights Consortium product category, and decrease the maximum "up to" incentive from \$25/Lamp to \$11/Lamp to maintain cost effectiveness. Currently offered incentive amounts will remain unchanged.

Maximum up to meentives for Market Eighting			
Equipment Type	Category	Current Maximum "up to" Incentive	Proposed Maximum "up to" Incentive
	Pin-based Lamps	\$15/Lamp	\$12/Lamp
LED	Linear Replacement Lamps	\$25/Lamp	\$11/Lamp

Maximum "up to" Incentives for Mid-Market Lighting

Currently Offered Incentives for Mid-Market Lighting

Measure Category	Equipment	Currently Offered Incentive	Proposed Offered Incentive
A-Lamps	A-19 Lamp, < 8 W, Medium Base	\$2/Lamp	\$1/Lamp
Reflector Lamps	BR Lamp	\$3/Lamp	\$2/Lamp
Decorative Lamps	Decorative Lamp	\$2.50/Lamp	\$2/Lamp

COST-EFFECTIVENESS

The cost effectiveness analysis for the Wattsmart Business Program, attached hereto as Exhibit B, was based on the maximum "up to" incentive levels. Table 5 below, pulled from Exhibit B, presents the expected cost effectiveness of the Program for years 2022-2023 assuming the proposed changes in this filing. Additional details and inputs are included in Exhibit B. Sensitivity analyses are also included as Exhibits C and D. The Program is expected to remain cost effective from the Utility Cost Test perspective under all scenarios.

Table 5 – Wattsmart Business Program Cost Effectiveness Results PY2022-2023 (Expected Participation)

Cost-Effectiveness Test	Levelized \$/kWh	Costs	Benefits	Net Benefits	Benefit/ Cost Ratio
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0614	\$91,896,487	\$89,103,428	-\$2,793,059	0.97
Total Resource Cost Test (TRC) No Adder	\$0.0614	\$91,896,487	\$81,003,117	-\$10,893,371	0.88
Utility Cost Test (UCT)	\$0.0296	\$44,297,609	\$81,003,117	\$36,705,507	1.83
Rate Impact Test (RIM)		\$198,986,759	\$81,003,117	-\$117,983,643	0.41
Participant Cost Test (PCT)		\$96,110,008	\$186,110,342	\$90,000,333	1.94
Lifecycle Revenue Impacts (\$/kWh)					\$0.0006953

STAKEHOLDER COLLABORATION

On October 19, 2021, the Company circulated a draft of this advice letter to DSM Steering Committee members for initial review and comment. On October 27, 2021, the Company held a meeting with Steering Committee members to further discuss these proposed changes.

Exhibit A



OriginalFirst Revision of Sheet No. 140.2 Canceling Original Sheet No. 140.2

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
<u>Small Business</u> <u>Enhanced</u>	Determined by Company with not- to-exceed amounts as shown in Table 12	<u>Up to 90%</u>	<u>No</u>	Available to all Schedule 6, 6A, and 23 customers meeting eligibility requirements. Qualifying equipment must be installed by an approved contractor/vendor
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.
Whole Building New Construction Incentive	Determined by Company with not- to-exceed amounts as shown in Table 15	<u>N/A</u>	<u>No</u>	<u>Building types not eligible:</u> <u>multifamily, refrigerated</u> <u>warehouse, data center, laboratory,</u> clean room, supermarket, hospital.
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.

(continued)

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.

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. 21-035--T1320-035-04



ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table Ta Elgneing System Rectores			
Measure	Category		Maximum Incentive "up to"
	Interior	Prescriptive	See Mid-Market <u>table</u>
	Lighting	Non-Prescriptive	\$1.50/W Reduced
Lighting System	Exterior	Prescriptive	See Mid-Market <u>table</u>
Detrofit	Lighting	Non-Prescriptive	\$0.75/W Reduced
Ketront	Controlle	ed Environment Agriculture	<u>\$0.05/kWh</u>
	Controls-Only		\$0.80/W Controlled
	Custom		\$0.85/W Reduced

Table 1a - Lighting System Retrofits

Table 1b – New Construction/Major Renovation Lighting Incentives⁵

Measure	Category	Incentive "up to"
	Troffer	\$10/Fixture
	Linear Ambient	\$10/Fixture
Interior Lighting	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
Controlled Environment Agriculture		<u>\$0.05/kWh</u>

Table 2 - Motor Incentives

Equipment Type	Incentive "up to"
Electronically Commutated Motor	\$1/watt or \$50100/horsepower based on application
Variable Frequency Drives	\$ 65<u>200</u>/horsepower
Green Motor Rewinds	\$1/horsepower

Table 3a – HVAC Incentives

Equipment Type	Customer Incentive "up to"
Unitary Commercial Air Conditioners	\$75/ton
Packaged Terminal Air Conditioners (PTAC)	\$25/ton
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	\$50/ton
Unitary Commercial Heat Pumps	\$75/ton
Heat Pump Loop	\$ 25 125/ton
Variable Refrigerant Flow Heat Pumps	\$150/ton

⁵ Interior and Exterior Lighting in Table 1b for New Construction/Major Renovation will be discontinued effective March 31, 2022.

(continued)

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. <u>21-035-</u> <u>—T1320-035-04</u>



OriginalFirst Revision of Sheet No. 140.5 Canceling Original Sheet No. 140.5

ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b – Other HVAC Incentives

Equipment Type	Incentive "up to"
Evaporative Cooling	\$0.06/ CFM
Indirect-Direct Evaporative Cooling (IDEC)	\$0.15/kWh annual energy savings
Chillers	\$0.15/kWh annual energy savings
365/366 day Programmable or Occupancy-based Thermostat	\$150/thermostat
Occupancy Based PTHP/PTAC control	\$50/controller
Evaporative Pre-cooler (Retrofit Only)	\$75/ton of attached cooling capacity
Advanced Rooftop Unit Control (Retrofit)	\$ 4,500<u>6,500</u>
Advanced Rooftop Unit Control (New RTU)	\$ 2,800<u>4,500</u>
Advanced Rooftop Unit Control (DCV Only)	\$800

Table 4a – Building Envelope Incentives (Retrofit)

9	
Equipment Type	Incentive "up to"
Cool Roof	\$0. 10<u>04</u>/square foot
Roof/Attic Insulation	\$ 0.05 0.20/square foot
Wall Insulation	\$ 0.07<u>0.15</u>/square foot
Windows	\$ 0.35 0.50/square foot
Window Film	\$0.15/kWh annual energy savings
Wall Insulation Windows Window Film	\$0.07 <u>0.15</u> /square foot \$0.35 <u>0.50</u> /square foot \$0.15/kWh annual energy savings

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

Equipment Type	Incentive "up to"
Cool Roof	\$ 0.10<u>0.02</u>/square foot
Roof/Attic Insulation	\$ 0.05<u>0.03</u>/square foot
Wall Insulation	\$0.07/square foot
Windows	\$0.35/square foot

(continued)

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. <u>21-035-</u> <u>—T1320-035-04</u>



ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

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

Irrigation Measure	Incentive "up to"
New rotating sprinkler replacing worn or leaking impact or rotating sprinkler	\$2.50 each
New or rebuilt impact sprinkler replacing worn or leaking impact sprinkler	\$2.25 each
Sprinkler Replacement	<u>\$0.50 each</u>
New nozzle replacing worn nozzle of same design flow or less on existing sprinklerNozzle Replacement	\$ 0.50<u>1.50</u> each
New gasket replacing leaking gasketGasket Replacement	\$2 each
New drain replacing leaking drainDrain Replacement	\$ <u>2</u> 3 each
Cut and press or weld repair of leaking wheel line, hand line, or portable main line <u>Pipe Repair</u>	\$ 10 8/repair
New or rebuilt wheel line leveler replacing leaking or malfunctioning levelerLeveler Replacement	\$ <mark>3-<u>1</u>each</mark>

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

Irrigation Measure	Incentive "up to"
Pressure regulator replacing new pressure regulator of same design pressure or less	\$3 each
Low pressure sprinkler replacing impact sprinkler	\$3 each
Low pressure sprinkler replacing worn low pressure sprinkler	\$1.50 each
Sprinkler Replacement Package	<u>\$7 each</u>
Pivot/Linear Upgrade	<u>\$7 each</u>

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

Irrigation Measure	Incentive "up to"
Irrigation pump variable frequency drive added to existing or new irrigation pump	\$0.15/kWh annual savings

Table 9 – Farm and Dairy Equipment Incentives

Equipment Type	Incentive "up to"
High-efficiency Circulating fan	\$75/fan
Heat Recovery	\$0.15/kWh annual energy savings
High-efficiency Ventilation Fan	\$150/fan
Milk Pre-cooler (Retrofit Only)	\$0.15/kWh annual energy savings
Programmable Ventilation Controllers	\$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pump (Retrofit Only)	\$165/horsepower

(continued)



ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Table 10 – Compressed An Incentives		
Equipment Category	Incentive "up to"	
Low Pressure Drop Filter Replacement	\$2/scfm	
Receiver Capacity Addition	\$3/gal above 2 gallons per scfm	
Cycling Refrigerated Dryer	\$2/scfm	
Variable Frequency Drive Controlled Compressor	\$0.15/kWh annual energy savings	
Zero Loss Condensate Drain	\$100 each	
Outside Air Intake	\$6/horsepower	
Compressed air end use reduction	\$0.15/kWh annual energy savings	

Table 10 – Compressed Air Incentives

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

Equipment Type	Incentive "up to"
Adaptive refrigeration control	\$0.15/kWh annual energy savings
Fast acting door	\$0.15/kWh annual energy savings
Oil and gas pump off controller	\$1,500 per controller
Wastewater – low power mixer	\$0.15/kWh annual energy savings

Small Business Direct InstallEnhanced (Retrofit only)

Incentives and participation for small business <u>enhanced offerings</u> <u>direct installations</u> 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 2550% of the qualifying equipment costs.

Eligible Customer	Eligibility Requirements	Incentive "up to"	Custome "up	er Co-pay to"
Kate Scheuules		սրտ	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<u>50</u>%
6a	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	\$5,000 per facility	10%	25<u>50</u>%
23		\$5,000 per facility	10%	25<u>50</u>%

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

(continued)



OriginalFirst Revision of Sheet No. 140.9 Canceling Original Sheet No. 140.9

ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Measure	Category	Incentive "up to"
	A-Lamps	\$10/Lamp
	Reflector Lamps	\$15/Lamp
	Pin-based Lamps	\$ 15 12/Lamp
	Decorative Lamps	\$10/Lamp
LED	Recessed Downlight Kits	\$15/Fixture
LED	TLED LampsLinear Replacement Lamps	\$ 25<u>11</u>/Lamp
	HID Replacement Lamps	\$110/Lamp
	Wall Pack Fixture	
	Troffer Kit/Fixture	\$30/Fixture
	Linear Ambient Kit/Fixture	\$20/Fixture

Table 13a – Mid-Market Incentives -Lighting

Table 13b – Mid-Market Incentives –HVAC

Measure	Customer/Mid-Market Incentive "up to"	
Unitary Commercial Air Conditioners	\$100/Ton	

Table 14 – HVAC Check-up Incentives

Measure	Incentive "up to"
Maintenance Agreement	\$75/RTU
Thermostats	\$50/Thermostat
Economizer	\$150/RTU
Refrigerant	\$35/Ton RTU Capacity

Table 15 – Whole Building New Construction Incentives

Measure	<u>Incentive</u> <u>"up to"</u>
Early Engagement Design Charrette	<u>\$2,500/project</u>
Design Phase	<u>\$0.35/sq-ft</u>
Construction Phase	<u>\$0.24/kWh</u>
Performance Phase	<u>\$0.05/kWh</u>

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. 21-035-T13-20-035-04



First Revision of Sheet No. 140.2 Canceling Original Sheet No. 140.2

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
Small Business Enhanced	Determined by Company with not- to-exceed amounts as shown in Table 12	Up to 90%	No	Available to all Schedule 6, 6A, and 23 customers meeting eligibility requirements. Qualifying equipment must be installed by an approved contractor/vendor
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.
Whole Building New Construction Incentive	Determined by Company with not- to-exceed amounts as shown in Table 15	N/A	No	Building types not eligible: multifamily, refrigerated warehouse, data center, laboratory, clean room, supermarket, hospital.
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.

(continued)

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.

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. 21-035-T13



ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 1a - Eighting System Retroites			
Measure	Category		Maximum Incentive "up to"
	Interior	Prescriptive	See Mid-Market table
	Lighting	Non-Prescriptive	\$1.50/W Reduced
Tinhtin a Courtour	Exterior	Prescriptive	See Mid-Market table
Detrofit	Lighting	Non-Prescriptive	\$0.75/W Reduced
Ketroint	Controlle	d Environment Agriculture	\$0.05/kWh
	Controls-Only		\$0.80/W Controlled
	Custom		\$0.85/W Reduced

Table 1a - Lighting System Retrofits

<u>Table 1b – New Construction/Major Renovation Lighting Incen</u>tives⁵

Measure	Category	Incentive "up to"
	Troffer	\$10/Fixture
Interior Lighting	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
Controlled Environment Agriculture		\$0.05/kWh

Table 2 - Motor Incentives

Equipment Type	Incentive "up to"
Electronically Commutated Motor	\$1/watt or \$100/horsepower based on application
Variable Frequency Drives	\$200/horsepower
Green Motor Rewinds	\$1/horsepower

Table 3a – HVAC Incentives

Equipment Type	Customer Incentive "up to"
Unitary Commercial Air Conditioners	\$75/ton
Packaged Terminal Air Conditioners (PTAC)	\$25/ton
Packaged Terminal Heat Pumps (PTHP) (Heating & Cooling Mode)	\$50/ton
Unitary Commercial Heat Pumps	\$75/ton
Heat Pump Loop	\$125/ton
Variable Refrigerant Flow Heat Pumps	\$150/ton

(continued)

⁵ Interior and Exterior Lighting in Table 1b for New Construction/Major Renovation will be discontinued effective March 31, 2022.

Issued by authority of Report and Order of the Public Service Commission of Utah in Docket No. 21-035-T13



ELECTRIC SERVICE SCHEDULE NO. 140 - Continued

Table 3b – Other HVAC Incentives

Equipment Type	Incentive "up to"		
Evaporative Cooling	\$0.06/ CFM		
Indirect-Direct Evaporative Cooling (IDEC)	\$0.15/kWh annual energy savings		
Chillers	\$0.15/kWh annual energy savings		
365/366 day Programmable or Occupancy-based Thermostat	\$150/thermostat		
Occupancy Based PTHP/PTAC control	\$50/controller		
Evaporative Pre-cooler (Retrofit Only)	\$75/ton of attached cooling capacity		
Advanced Rooftop Unit Control (Retrofit)	\$6,500		
Advanced Rooftop Unit Control (New RTU)	\$4,500		
Advanced Rooftop Unit Control (DCV Only)	\$800		

Table 4a – Building Envelope Incentives (Retrofit)

8	
Equipment Type	Incentive "up to"
Cool Roof	\$0.04/square foot
Roof/Attic Insulation	\$0.20/square foot
Wall Insulation	\$0.15/square foot
Windows	\$0.50/square foot
Window Film	\$0.15/kWh annual energy savings

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

Equipment Type	Incentive "up to"
Cool Roof	\$0.02/square foot
Roof/Attic Insulation	\$0.03/square foot
Wall Insulation	\$0.07/square foot
Windows	\$0.35/square foot

(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	Incentive "up to"
Sprinkler Replacement	\$0.50 each
Nozzle Replacement	\$1.50 each
Gasket Replacement	\$2 each
Drain Replacement	\$2 each
Pipe Repair	\$8/repair
Leveler Replacement	\$1 each

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

Irrigation Measure	Incentive "up to"
Sprinkler Replacement Package	\$7 each
Pivot/Linear Upgrade	\$7 each

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

Irrigation Measure	Incentive "up to"
Irrigation pump variable frequency drive added to existing or new irrigation pump	\$0.15/kWh annual savings

Table 9 – Farm and Dairy Equipment Incentives

Equipment Type	Incentive "up to"
High-efficiency Circulating fan	\$75/fan
Heat Recovery	\$0.15/kWh annual energy savings
High-efficiency Ventilation Fan	\$150/fan
Milk Pre-cooler (Retrofit Only)	\$0.15/kWh annual energy savings
Programmable Ventilation Controllers	\$20/fan controlled
Variable Frequency Drives for Dairy Vacuum Pump (Retrofit Only)	\$165/horsepower

(continued)



ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Table 10 – Compressed An Incentives					
Equipment Category	Incentive "up to"				
Low Pressure Drop Filter Replacement	\$2/scfm				
Receiver Capacity Addition	\$3/gal above 2 gallons per scfm				
Cycling Refrigerated Dryer	\$2/scfm				
Variable Frequency Drive Controlled Compressor	\$0.15/kWh annual energy savings				
Zero Loss Condensate Drain	\$100 each				
Outside Air Intake	\$6/horsepower				
Compressed air end use reduction	\$0.15/kWh annual energy savings				

Table 10 – Compressed Air Incentives

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

Equipment Type	Incentive "up to"
Adaptive refrigeration control	\$0.15/kWh annual energy savings
Fast acting door	\$0.15/kWh annual energy savings
Oil and gas pump off controller	\$1,500 per controller
Wastewater – low power mixer	\$0.15/kWh annual energy savings

Small Business Enhanced (Retrofit only)

Incentives and participation for small business enhanced offerings 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 50% of the qualifying equipment costs.

Eligible Customer	Eligibility Requirements	Incentive "up to"	Customer Co-pay "up to"	
Kate Scheuules		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%	50%
6a	Non-residential facilities not in excess of 200 kW demand monthly in the last twelve months.	\$5,000 per facility	10%	50%
23		\$5,000 per facility	10%	50%

Table 12 – Incentives for Small Business Enhanced (Retrofit only)

(continued)



ELECTRIC SERVICE SCHEDULE NO. 140 – Continued

Measure	Category	Incentive "up to"
	A-Lamps	\$10/Lamp
	Reflector Lamps	\$15/Lamp
	Pin-based Lamps	\$12/Lamp
	Decorative Lamps	\$10/Lamp
	Downlight Kits	\$15/Fixture
LED	Linear Replacement Lamps	\$11/Lamp
	HID Replacement Lamps	\$110/Lamp
	Wall Pack Fixture	\$30/Fixture
	Troffer Kit/Fixture	\$30/Fixture
	Linear Ambient Kit/Fixture	\$20/Fixture

Table 13a – Mid-Market Incentives -Lighting

Table 13b – Mid-Market Incentives –HVAC

Measure	Customer/Mid-Market Incentive "up to"	
Unitary Commercial Air Conditioners	\$100/Ton	

Table 14 – HVAC Check-up Incentives

Measure	Incentive "up to"
Maintenance Agreement	\$75/RTU
Thermostats	\$50/Thermostat
Economizer	\$150/RTU
Refrigerant	\$35/Ton RTU Capacity

Table 15 – Whole Building New Construction Incentives

Measure	Incentive "up to"
Early Engagement Design Charrette	\$2,500/project
Design Phase	\$0.35/sq-ft
Construction Phase	\$0.24/kWh
Performance Phase	\$0.05/kWh

Exhibit B



MEMORANDUM

- To: Lin Alder, Rocky Mountain Power
- From: Dimitry Burdjalov and Andy Hudson, AEG
- CC: Clay Monroe, Rocky Mountain Power
- Date: November 1, 2021
- Re: Utah Wattsmart Business Program Cost-Effectiveness Analysis, Expected Participation PY2022-2023

AEG estimated the cost-effectiveness of Rocky Mountain Power's Wattsmart Business Program in the state of Utah using expected participation rates based on Program Year (PY) 2022 and 2023 costs and savings estimates developed by AEG and confirmed by Rocky Mountain Power. This memo provides cost-effectiveness results at the program level for the base (expected participation) case. The program passes the Utility Cost Test (UCT) and the Participant Cost Test (PCT) under these conditions.

This memo provides analysis inputs and results in the following tables:

- Table 1: Cost-Effectiveness Analysis Inputs
- Table 2: Annual Program Costs by Program Year, Nominal PY2022-2023
- Table 3: Annual Savings in kWh by Program Year PY2022-2023
- Table 4: Benefit/Cost Ratios by Program Year PY2022-2023
- Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023
- Table 6: Wattsmart Business Program Cost-Effectiveness Results, PY2022
- Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023
- Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022
- Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023



The following assumptions were utilized in the analysis:

- Avoided Costs: Hourly values provided by Rocky Mountain Power based on the 2019 Integrated Resource Plan IRP) Preferred Portfolio, converted into annual values using Utah load shapes from the same IRP.
- Modeling Inputs: measure savings, costs, measure lives, incentive levels, program delivery, and portfolio costs were based on estimates developed by implementers, developed and reviewed by AEG, or provided by Rocky Mountain Power.
- Other Economic Assumptions: Discount rate, line loss, retail rate, and inflation rate values were provided by Rocky Mountain Power and are presented in Table 1 below.

The following tables summarize cost-effectiveness assumptions and results for the Utah Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Table 2 and Table 3 below. Tables 4 through 7 present the cost-effectiveness results of the Wattsmart Business program for 2022 and 2023 individually as well as for 2022 and 2023 combined. All results are presented in 2022 dollars^{*I*}. Tables 8 and 9 present results at the measure category level for 2022 and 2023, respectively.

Parameter	PY2022	PY2023
Discount Rate	6.92%	6.92%
Commercial Line Loss	5.86%	5.86%
Industrial Line Loss	4.10%	4.10%
Irrigation Line Loss	6.34%	6.34%
Commercial Energy Rate (\$/kWh)	\$0.0809	\$0.0827
Industrial Energy Rate (\$/kWh)	\$0.0568	\$0.0581
Irrigation Energy Rate (\$/kWh)	\$0.0728	\$0.0745
Inflation Rate ²	2.28%	2.28%
Parameter	PY2022	PY2023

Table 1: Cost-Effectiveness Analysis Inputs

Table 2: Annual Program Costs by Program Year, Nominal - PY2022-2023

Program	Program	Utility Admin	Incentives	Total Utility	Gross	
Year	Delivery		incentives	Costs	Customer Costs	
2022	\$6,343,000	\$335,310	\$15,019,987	\$21,698,297	\$48,852,649	
2023	\$6,533,290	\$345,369	\$17,284,526	\$24,163,185	\$47,257,359	
2022-2023	\$12,876,290	\$680,678	\$32,304,513	\$45,861,482	\$96,110,008	

¹ To align with annual budget expectations, cost-effectiveness inputs are presented in nominal dollars.

² Future rates determined using a 2.28% annual escalator.



Table 3: Annual Savings in kWh by Program Year - PY2022-2023

	Program	Gross kWh	Realization	Adjusted Gross kWh	Net to	Net kWh	Measure
	Year	Savings at Site	Rate	Savings at Site	Gross Ratio	Savings at Site	Life
-	2022	\$95,156,289	97%	\$92,530,972	84%	\$77,988,078	14.15
	2023	\$95,427,550	96%	\$91,218,373	84%	\$76,738,844	14.76
l	2022-2023	\$190,583,839	96%	\$183,749,345	84%	\$154,726,922	14.46

Table 4: Benefit/Cost Ratios by Program Year - PY2022-2023

Program Year	UCT	TRC	PTRC	РСТ	RIM
2022	1.86	0.87	0.96	1.92	0.40
2023	1.80	0.89	0.98	1.95	0.41
2022-2023	1.83	0.88	0.97	1.94	0.41

Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0296	\$44,297,609	\$81,003,117	\$36,705,507	1.83
Total Resource Cost Test (TRC) No Adder	\$0.0614	\$91,896,487	\$81,003,117	(\$10,893,371)	0.88
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0614	\$91,896,487	\$89,103,428	(\$2,793,059)	0.97
Participant Cost Test (PCT)		\$96,110,008	\$186,110,342	\$90,000,333	1.94
Rate Impact Test (RIM)		\$198,986,759	\$81,003,117	(\$117,983,643)	0.41
Lifecycle Revenue Impacts (\$/kWh)					\$0.0006953



Table 6: Wattsmart Business Prog	ram Cost-Effectiveness	Results,	PY2022
----------------------------------	------------------------	----------	--------

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0281	\$21,698,297	\$40,385,045	\$18,686,748	1.86
Total Resource Cost Test (TRC) No Adder	\$0.0601	\$46,488,353	\$40,385,045	(\$6,103,308)	0.87
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0601	\$46,488,353	\$44,423,549	(\$2,064,804)	0.96
Participant Cost Test (PCT)		\$48,852,649	\$93,927,579	\$45,074,929	1.92
Rate Impact Test (RIM)		\$100,484,275	\$40,385,045	(\$60,099,231)	0.40
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003604

Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0312	\$22,599,312	\$40,618,072	\$18,018,759	1.80
Total Resource Cost Test (TRC) No Adder	\$0.0627	\$45,408,135	\$40,618,072	(\$4,790,063)	0.89
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0627	\$45,408,135	\$44,679,879	(\$728,256)	0.98
Participant Cost Test (PCT)		\$47,257,359	\$92,182,763	\$44,925,404	1.95
Rate Impact Test (RIM)		\$98,502,484	\$40,618,072	(\$57,884,412)	0.41
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003735

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$749,706	\$624,799	1.20	\$749,706	\$1,662,081	0.45	\$824,677	\$1,662,081	0.50	\$1,957,663	\$1,908,544	1.03	\$749,706	\$2,111,994	0.35
Wattsmart Business	Compressed Air	\$1,217,069	\$532,162	2.29	\$1,217,069	\$768,652	1.58	\$1,338,776	\$768,652	1.74	\$1,926,487	\$646,500	2.98	\$1,217,069	\$2,139,149	0.57
Wattsmart Business	Energy Mngmt.	\$1,099,326	\$770,411	1.43	\$1,099,326	\$1,561,691	0.70	\$1,209,259	\$1,561,691	0.77	\$2,443,551	\$1,511,776	1.62	\$1,099,326	\$2,644,761	0.42
Wattsmart Business	Farm & Dairy	\$122,171	\$76,717	1.59	\$122,171	\$121,197	1.01	\$134,388	\$121,197	1.11	\$225,552	\$112,000	2.01	\$122,171	\$258,270	0.47
Wattsmart Business	Food Service	\$194,314	\$97,382	2.00	\$194,314	\$200,250	0.97	\$213,745	\$200,250	1.07	\$471,101	\$194,873	2.42	\$194,314	\$523,248	0.37
Wattsmart Business	HVAC	\$8,144,705	\$8,210,128	0.99	\$8,144,705	\$15,499,470	0.53	\$8,959,176	\$15,499,470	0.58	\$26,816,262	\$19,732,149	1.36	\$8,144,705	\$28,780,555	0.28
Wattsmart Business	Irrigation	\$875,598	\$466,367	1.88	\$875,598	\$719,610	1.22	\$963,158	\$719,610	1.34	\$1,814,103	\$689,269	2.63	\$875,598	\$1,989,190	0.44
Wattsmart Business	Lighting	\$27,168,353	\$10,395,921	2.61	\$27,168,353	\$25,371,467	1.07	\$29,885,188	\$25,371,467	1.18	\$56,013,146	\$23,492,623	2.38	\$27,168,353	\$59,683,283	0.46
Wattsmart Business	Motors	\$489,928	\$175,599	2.79	\$489,928	\$218,133	2.25	\$538,921	\$218,133	2.47	\$1,019,999	\$145,805	7.00	\$489,928	\$1,120,196	0.44
Wattsmart Business	Refrigeration	\$284,481	\$285,331	1.00	\$284,481	\$245,561	1.16	\$312,930	\$245,561	1.27	\$975, 183	\$273,000	3.57	\$284,481	\$1,081,513	0.26
Wattsmart Business	Water Heating	\$39,394	\$63,480	0.62	\$39,394	\$120,241	0.33	\$43,333	\$120,241	0.36	\$142,918	\$146,110	0.98	\$39,394	\$152,116	0.26

Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022

Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$229,884	\$183,455	1.25	\$229,884	\$484,180	0.47	\$252,873	\$484,180	0.52	\$579,692	\$554,356	1.05	\$229,884	\$625,931	0.37
Wattsmart Business	Compressed Air	\$1,247,162	\$523,716	2.38	\$1,247,162	\$754,458	1.65	\$1,371,879	\$754,458	1.82	\$1,903,105	\$629,910	3.02	\$1,247,162	\$2,115,840	0.59
Wattsmart Business	Energy Mngmt.	\$6,402,152	\$5,103,865	1.25	\$6,402,152	\$9,099,872	0.70	\$7,042,368	\$9,099,872	0.77	\$14,877,582	\$8,954,617	1.66	\$6,402,152	\$15,918,409	0.40
Wattsmart Business	Farm & Dairy	\$152,095	\$90,836	1.67	\$152,095	\$142,837	1.06	\$167,304	\$142,837	1.17	\$268,532	\$130,939	2.05	\$152,095	\$307,928	0.49
Wattsmart Business	Food Service	\$193,638	\$92,540	2.09	\$193,638	\$188,751	1.03	\$213,001	\$188,751	1.13	\$449,692	\$182,261	2.47	\$193,638	\$499,925	0.39
Wattsmart Business	HVAC	\$7,631,044	\$7,494,445	1.02	\$7,631,044	\$13,264,302	0.58	\$8,394,148	\$13,264,302	0.63	\$24,772,958	\$16,961,386	1.46	\$7,631,044	\$26,513,288	0.29
Wattsmart Business	Irrigation	\$908,158	\$460,191	1.97	\$908,158	\$700,489	1.30	\$998,974	\$700,489	1.43	\$1,810,422	\$663,227	2.73	\$908,158	\$1,986,962	0.46
Wattsmart Business	Lighting	\$23,006,373	\$8,113,675	2.84	\$23,006,373	\$20,188,606	1.14	\$25,307,010	\$20,188,606	1.25	\$45,217,093	\$18,619,575	2.43	\$23,006,373	\$48,120,692	0.48
Wattsmart Business	Motors	\$484,848	\$167,041	2.90	\$484,848	\$206,822	2.34	\$533,333	\$206,822	2.58	\$974,127	\$136,369	7.14	\$484,848	\$1,070,646	0.45
Wattsmart Business	Refrigeration	\$323,713	\$309,918	1.04	\$323,713	\$265,100	1.22	\$356,084	\$265,100	1.34	\$1,080,259	\$288,066	3.75	\$323,713	\$1,198,445	0.27
Wattsmart Business	Water Heating	\$39,004	\$59,629	0.65	\$39,004	\$112,717	0.35	\$42,905	\$112,717	0.38	\$135,558	\$136,653	0.99	\$39,004	\$144,419	0.27

Exhibit C



MEMORANDUM

- To: Lin Alder, Rocky Mountain Power
- From: Dimitry Burdjalov and Andy Hudson, AEG
- CC: Clay Monroe, Rocky Mountain Power
- Date: November 1, 2021
- Re: Utah Wattsmart Business Program Cost-Effectiveness Analysis, High (+10%) Participation PY2022-2023

AEG estimated the cost-effectiveness of Rocky Mountain Power's Wattsmart Business Program in the state of Utah using expected participation rates based on Program Year (PY) 2022 and 2023 costs and savings estimates developed by AEG and confirmed by Rocky Mountain Power. This memo provides cost-effectiveness results at the program level for the high (+10% participation) case. The program passes the Utility Cost Test (UCT) and the Participant Cost Test (PCT) under these conditions.

This memo provides analysis inputs and results in the following tables:

- Table 1: Cost-Effectiveness Analysis Inputs
- Table 2: Annual Program Costs by Program Year, Nominal PY2022-2023
- Table 3: Annual Savings in kWh by Program Year PY2022-2023
- Table 4: Benefit/Cost Ratios by Program Year PY2022-2023
- Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023
- Table 6: Wattsmart Business Program Cost-Effectiveness Results, PY2022
- Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023
- Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022
- Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023



The following assumptions were utilized in the analysis:

- Avoided Costs: Hourly values provided by Rocky Mountain Power based on the 2019 Integrated Resource Plan IRP) Preferred Portfolio, converted into annual values using Utah load shapes from the same IRP.
- Modeling Inputs: measure savings, costs, measure lives, incentive levels, program delivery, and portfolio costs were based on estimates developed by implementers, developed and reviewed by AEG, or provided by Rocky Mountain Power.
- Other Economic Assumptions: Discount rate, line loss, retail rate, and inflation rate values were provided by Rocky Mountain Power and are presented in Table 1 below.

The following tables summarize cost-effectiveness assumptions and results for the Utah Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Table 2 and Table 3 below. Tables 4 through 7 present the cost-effectiveness results of the Wattsmart Business program for 2022 and 2023 individually as well as for 2022 and 2023 combined. All results are presented in 2022 dollars^{*I*}. Tables 8 and 9 present results at the measure category level for 2022 and 2023, respectively.

Parameter	PY2022	PY2023
Discount Rate	6.92%	6.92%
Commercial Line Loss	5.86%	5.86%
Industrial Line Loss	4.10%	4.10%
Irrigation Line Loss	6.34%	6.34%
Commercial Energy Rate (\$/kWh)	\$0.0809	\$0.0827
Industrial Energy Rate (\$/kWh)	\$0.0568	\$0.0581
Irrigation Energy Rate (\$/kWh)	\$0.0728	\$0.0745
Inflation Rate ²	2.28%	2.28%
Parameter	PY2022	PY2023

Table 1: Cost-Effectiveness Analysis Inputs

Table 2: Annual Program Costs by Program Year, Nominal - PY2022-2023

Program Program		Utility Admin	Incentives	Total Utility	Gross
Year	Delivery	- 1		Costs	Customer Costs
2022	\$6,343,000	\$335,310	\$16,521,986	\$23,200,295	\$53,737,914
2023	\$6,533,290	\$345,369	\$19,012,979	\$25,891,637	\$51,983,094
2022-2023	\$12,876,290	\$680,678	\$35,534,965	\$49,091,933	\$105,721,009

¹ To align with annual budget expectations, cost-effectiveness inputs are presented in nominal dollars.

² Future rates determined using a 2.28% annual escalator.



Table 3: Annual Savings in kWh by Program Year - PY2022-2023

Program	Gross kWh	Realization	Adjusted Gross kWh	Net to	Net kWh	Measure
Year	Savings at Site	Rate	Savings at Site	Gross Ratio	Savings at Site	Life
2022	\$104,671,918	97%	\$101,784,069	84%	\$85,786,885	14.15
2023	\$104,970,305	96%	\$100,340,210	84%	\$84,412,729	14.76
2022-2023	\$209,642,223	96%	\$202,124,279	84%	\$170,199,614	14.46

Table 4: Benefit/Cost Ratios by Program Year - PY2022-2023

Program Year	UCT	TRC	PTRC	PCT	RIM
2022	1.91	0.88	0.97	1.92	0.40
2023	1.85	0.91	1.00	1.95	0.41
2022-2023	1.88	0.89	0.98	1.94	0.41

Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0296	\$47,416,193	\$89,103,428	\$41,687,235	1.88
Total Resource Cost Test (TRC) No Adder	\$0.0614	\$99,774,959	\$89,103,428	(\$10,671,531)	0.89
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0614	\$99,774,959	\$98,013,771	(\$1,761,188)	0.98
Participant Cost Test (PCT)		\$105,721,009	\$204,721,376	\$99,000,367	1.94
Rate Impact Test (RIM)		\$217,574,258	\$89,103,428	(\$128,470,830)	0.41
Lifecycle Revenue Impacts (\$/kWh)					\$0.0006953



Table 6: Wattsr	nart Business	Program	Cost-Effectiveness	Results,	PY2022
-----------------	---------------	---------	--------------------	----------	--------

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0281	\$23,200,295	\$44,423,549	\$21,223,254	1.91
Total Resource Cost Test (TRC) No Adder	\$0.0601	\$50,469,357	\$44,423,549	(\$6,045,808)	0.88
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0601	\$50,469,357	\$48,865,904	(\$1,603,453)	0.97
Participant Cost Test (PCT)		\$53,737,914	\$103,320,337	\$49,582,422	1.92
Rate Impact Test (RIM)		\$109,864,872	\$44,423,549	(\$65,441,323)	0.40
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003604

Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0312	\$24,215,897	\$44,679,879	\$20,463,982	1.85
Total Resource Cost Test (TRC) No Adder	\$0.0627	\$49,305,602	\$44,679,879	(\$4,625,723)	0.91
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0627	\$49,305,602	\$49,147,867	(\$157,735)	1.00
Participant Cost Test (PCT)		\$51,983,094	\$101,401,039	\$49,417,945	1.95
Rate Impact Test (RIM)		\$107,709,386	\$44,679,879	(\$63,029,507)	0.41
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003735

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$824,677	\$671,846	1.23	\$824,677	\$1,812,856	0.45	\$907,144	\$1,812,856	0.50	\$2,153,430	\$2,099,398	1.03	\$824,677	\$2,260,714	0.36
Wattsmart Business	Compressed Air	\$1,338,776	\$564,112	2.37	\$1,338,776	\$824,251	1.62	\$1,472,653	\$824,251	1.79	\$2,119,136	\$711,150	2.98	\$1,338,776	\$2,299,848	0.58
Wattsmart Business	Energy Mngmt.	\$1,209,259	\$827,331	1.46	\$1,209,259	\$1,697,739	0.71	\$1,330,185	\$1,697,739	0.78	\$2,687,906	\$1,662,954	1.62	\$1,209,259	\$2,832,196	0.43
Wattsmart Business	Farm & Dairy	\$134,388	\$81,117	1.66	\$134,388	\$130,045	1.03	\$147,827	\$130,045	1.14	\$248,108	\$123,200	2.01	\$134,388	\$276,425	0.49
Wattsmart Business	Food Service	\$213,745	\$101,905	2.10	\$213,745	\$215,061	0.99	\$235,120	\$215,061	1.09	\$518,211	\$214,361	2.42	\$213,745	\$565,835	0.38
Wattsmart Business	HVAC	\$8,959,176	\$8,834,712	1.01	\$8,959,176	\$16,852,988	0.53	\$9,855,093	\$16,852,988	0.58	\$29,497,888	\$21,705,364	1.36	\$8,959,176	\$30,837,598	0.29
Wattsmart Business	Irrigation	\$963,158	\$495,495	1.94	\$963,158	\$774,062	1.24	\$1,059,473	\$774,062	1.37	\$1,995,513	\$758,196	2.63	\$963,158	\$2,141,473	0.45
Wattsmart Business	Lighting	\$29,885,188	\$11,068,499	2.70	\$29,885,188	\$27,541,600	1.09	\$32,873,707	\$27,541,600	1.19	\$61,614,460	\$25,841,885	2.38	\$29,885,188	\$64,612,019	0.46
Wattsmart Business	Motors	\$538,921	\$183,139	2.94	\$538,921	\$229,926	2.34	\$592,813	\$229,926	2.58	\$1,121,999	\$160,386	7.00	\$538,921	\$1,214,655	0.44
Wattsmart Business	Refrigeration	\$312,930	\$303,231	1.03	\$312,930	\$259,484	1.21	\$344,222	\$259,484	1.33	\$1,072,701	\$300,300	3.57	\$312,930	\$1,161,132	0.27
Wattsmart Business	Water Heating	\$43,333	\$68,908	0.63	\$43,333	\$131,346	0.33	\$47,666	\$131,346	0.36	\$157,210	\$160,721	0.98	\$43,333	\$160,980	0.27

Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022

Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$252,873	\$197,177	1.28	\$252,873	\$527,974	0.48	\$278,160	\$527,974	0.53	\$637,661	\$609,792	1.05	\$252,873	\$670,178	0.38
Wattsmart Business	Compressed Air	\$1,371,879	\$554,814	2.47	\$1,371,879	\$808,630	1.70	\$1,509,067	\$808,630	1.87	\$2,093,416	\$692,901	3.02	\$1,371,879	\$2,275,053	0.60
Wattsmart Business	Energy Mngmt.	\$7,042,368	\$5,510,169	1.28	\$7,042,368	\$9,905,777	0.71	\$7,746,604	\$9,905,777	0.78	\$16,365,340	\$9,850,078	1.66	\$7,042,368	\$16,999,863	0.41
Wattsmart Business	Farm & Dairy	\$167,304	\$95,980	1.74	\$167,304	\$153,181	1.09	\$184,035	\$153,181	1.20	\$295,386	\$144,033	2.05	\$167,304	\$329,637	0.51
Wattsmart Business	Food Service	\$213,001	\$96,771	2.20	\$213,001	\$202,603	1.05	\$234,302	\$202,603	1.16	\$494,662	\$200,487	2.47	\$213,001	\$540,664	0.39
Wattsmart Business	HVAC	\$8,394,148	\$8,069,857	1.04	\$8,394,148	\$14,416,699	0.58	\$9,233,563	\$14,416,699	0.64	\$27,250,254	\$18,657,525	1.46	\$8,394,148	\$28,415,173	0.30
Wattsmart Business	Irrigation	\$998,974	\$488,556	2.04	\$998,974	\$752,884	1.33	\$1,098,872	\$752,884	1.46	\$1,991,464	\$729,549	2.73	\$998,974	\$2,139,639	0.47
Wattsmart Business	Lighting	\$25,307,010	\$8,634,682	2.93	\$25,307,010	\$21,917,107	1.15	\$27,837,711	\$21,917,107	1.27	\$49,738,803	\$20,481,533	2.43	\$25,307,010	\$52,121,393	0.49
Wattsmart Business	Motors	\$533,333	\$174,094	3.06	\$533,333	\$217,852	2.45	\$586,666	\$217,852	2.69	\$1,071,539	\$150,006	7.14	\$533,333	\$1,161,006	0.46
Wattsmart Business	Refrigeration	\$356,084	\$329,092	1.08	\$356,084	\$279,791	1.27	\$391,692	\$279,791	1.40	\$1,188,285	\$316,872	3.75	\$356,084	\$1,287,298	0.28
Wattsmart Business	Water Heating	\$42,905	\$64,706	0.66	\$42,905	\$123,103	0.35	\$47,195	\$123,103	0.38	\$149,114	\$150,319	0.99	\$42,905	\$152,898	0.28

Exhibit D



MEMORANDUM

- To: Lin Alder, Rocky Mountain Power
- From: Dimitry Burdjalov and Andy Hudson, AEG
- CC: Clay Monroe, Rocky Mountain Power
- Date: November 1, 2021
- Re: Utah Wattsmart Business Program Cost-Effectiveness Analysis, Low (-10%) Participation PY2022-2023

AEG estimated the cost-effectiveness of Rocky Mountain Power's Wattsmart Business Program in the state of Utah using expected participation rates based on Program Year (PY) 2022 and 2023 costs and savings estimates developed by AEG and confirmed by Rocky Mountain Power. This memo provides cost-effectiveness results at the program level for the low (-10% participation) case. The program passes the Utility Cost Test (UCT) and the Participant Cost Test (PCT) under these conditions.

This memo provides analysis inputs and results in the following tables:

- Table 1: Cost-Effectiveness Analysis Inputs
- Table 2: Annual Program Costs by Program Year, Nominal PY2022-2023
- Table 3: Annual Savings in kWh by Program Year PY2022-2023
- Table 4: Benefit/Cost Ratios by Program Year PY2022-2023
- Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023
- Table 6: Wattsmart Business Program Cost-Effectiveness Results, PY2022
- Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023
- Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022
- Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023



The following assumptions were utilized in the analysis:

- Avoided Costs: Hourly values provided by Rocky Mountain Power based on the 2019 Integrated Resource Plan IRP) Preferred Portfolio, converted into annual values using Utah load shapes from the same IRP.
- Modeling Inputs: measure savings, costs, measure lives, incentive levels, program delivery, and portfolio costs were based on estimates developed by implementers, developed and reviewed by AEG, or provided by Rocky Mountain Power.
- Other Economic Assumptions: Discount rate, line loss, retail rate, and inflation rate values were provided by Rocky Mountain Power and are presented in Table 1 below.

The following tables summarize cost-effectiveness assumptions and results for the Utah Wattsmart Business Program. The cost-effectiveness analysis inputs are shown in Table 2 and Table 3 below. Tables 4 through 7 present the cost-effectiveness results of the Wattsmart Business program for 2022 and 2023 individually as well as for 2022 and 2023 combined. All results are presented in 2022 dollars^{*I*}. Tables 8 and 9 present results at the measure category level for 2022 and 2023, respectively.

Parameter	PY2022	PY2023
Discount Rate	6.92%	6.92%
Commercial Line Loss	5.86%	5.86%
Industrial Line Loss	4.10%	4.10%
Irrigation Line Loss	6.34%	6.34%
Commercial Energy Rate (\$/kWh)	\$0.0809	\$0.0827
Industrial Energy Rate (\$/kWh)	\$0.0568	\$0.0581
Irrigation Energy Rate (\$/kWh)	\$0.0728	\$0.0745
Inflation Rate ²	2.28%	2.28%
Parameter	PY2022	PY2023

Table 1: Cost-Effectiveness Analysis Inputs

Table 2: Annual Program Costs by Program Year, Nominal - PY2022-2023

Program	Program	Utility Admin	Incentives	Total Utility	Gross
Year	Delivery		incentives	Costs	Customer Costs
2022	\$6,343,000	\$335,310	\$13,517,988	\$20,196,298	\$43,967,384
2023	\$6,533,290	\$345,369	\$15,556,073	\$22,434,732	\$42,531,623
2022-2023	\$12,876,290	\$680,678	\$29,074,062	\$42,631,030	\$86,499,007

¹ To align with annual budget expectations, cost-effectiveness inputs are presented in nominal dollars.

² Future rates determined using a 2.28% annual escalator.



Table 3: Annual Savings in kWh by Program Year - PY2022-2023

	Program	Gross kWh	Realization	Adjusted Gross kWh	Net to	Net kWh	Measure
	Year	Savings at Site	Rate	Savings at Site	Gross Ratio	Savings at Site	Life
-	2022	\$85,640,660	97%	\$83,277,875	84%	\$70,189,270	14.15
	2023	\$85,884,795	96%	\$82,096,536	84%	\$69,064,960	14.76
	2022-2023	\$171,525,455	96%	\$165,374,410	84%	\$139,254,230	14.46

Table 4: Benefit/Cost Ratios by Program Year - PY2022-2023

Program Year	UCT	TRC	PTRC	PCT	RIM
2022	1.80	0.86	0.94	1.92	0.40
2023	1.74	0.88	0.97	1.95	0.41
2022-2023	1.77	0.87	0.95	1.94	0.40

Table 5: Wattsmart Business Program Cost-Effectiveness Results, PY2022-2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0296	\$41,179,025	\$72,902,805	\$31,723,779	1.77
Total Resource Cost Test (TRC) No Adder	\$0.0614	\$84,018,016	\$72,902,805	(\$11,115,211)	0.87
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0614	\$84,018,016	\$80,193,085	(\$3,824,931)	0.95
Participant Cost Test (PCT)		\$86,499,007	\$167,499,307	\$81,000,300	1.94
Rate Impact Test (RIM)		\$180,399,261	\$72,902,805	(\$107,496,456)	0.40
Lifecycle Revenue Impacts (\$/kWh)					\$0.0006953



Table 6: Wattsmart Business Program	Cost-Effectiveness Results, PY2022
-------------------------------------	------------------------------------

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0281	\$20,196,298	\$36,346,540	\$16,150,242	1.80
Total Resource Cost Test (TRC) No Adder	\$0.0601	\$42,507,349	\$36,346,540	(\$6,160,808)	0.86
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0601	\$42,507,349	\$39,981,194	(\$2,526,154)	0.94
Participant Cost Test (PCT)		\$43,967,384	\$84,534,821	\$40,567,436	1.92
Rate Impact Test (RIM)		\$91,103,679	\$36,346,540	(\$54,757,139)	0.40
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003604

Table 7: Wattsmart Business Program Cost-Effectiveness Results, PY2023

Cost-Effectiveness Test	Levelized \$/kWh	NPV Costs	NPV Benefits	Net Benefits	Benefit/Cost Ratio
Utility Cost Test (UCT)	\$0.0312	\$20,982,728	\$36,556,265	\$15,573,537	1.74
Total Resource Cost Test (TRC) No Adder	\$0.0627	\$41,510,667	\$36,556,265	(\$4,954,403)	0.88
Total Resource Cost Test (PTRC) + Conservation Adder	\$0.0627	\$41,510,667	\$40,211,891	(\$1,298,776)	0.97
Participant Cost Test (PCT)		\$42,531,623	\$82,964,486	\$40,432,864	1.95
Rate Impact Test (RIM)		\$89,295,582	\$36,556,265	(\$52,739,317)	0.41
Lifecycle Revenue Impacts (\$/kWh)					\$0.0003735

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$674,736	\$577,752	1.17	\$674,736	\$1,511,306	0.45	\$742,209	\$1,511,306	0.49	\$1,761,897	\$1,717,690	1.03	\$674,736	\$1,963,275	0.34
Wattsmart Business	Compressed Air	\$1,095,362	\$500,212	2.19	\$1,095,362	\$713,053	1.54	\$1,204,898	\$713,053	1.69	\$1,733,839	\$581,850	2.98	\$1,095,362	\$1,978,450	0.55
Wattsmart Business	Energy Mngmt.	\$989,394	\$713,491	1.39	\$989,394	\$1,425,643	0.69	\$1,088,333	\$1,425,643	0.76	\$2,199,196	\$1,360,598	1.62	\$989,394	\$2,457,326	0.40
Wattsmart Business	Farm & Dairy	\$109,954	\$72,317	1.52	\$109,954	\$112,349	0.98	\$120,949	\$112,349	1.08	\$202,997	\$100,800	2.01	\$109,954	\$240,114	0.46
Wattsmart Business	Food Service	\$174,882	\$92,858	1.88	\$174,882	\$185,440	0.94	\$192,371	\$185,440	1.04	\$423,991	\$175,386	2.42	\$174,882	\$480,661	0.36
Wattsmart Business	HVAC	\$7,330,235	\$7,585,545	0.97	\$7,330,235	\$14,145,953	0.52	\$8,063,258	\$14,145,953	0.57	\$24,134,636	\$17,758,934	1.36	\$7,330,235	\$26,723,512	0.27
Wattsmart Business	Irrigation	\$788,038	\$437,239	1.80	\$788,038	\$665,157	1.18	\$866,842	\$665,157	1.30	\$1,632,693	\$620,342	2.63	\$788,038	\$1,836,908	0.43
Wattsmart Business	Lighting	\$24,451,517	\$9,723,343	2.51	\$24,451,517	\$23,201,334	1.05	\$26,896,669	\$23,201,334	1.16	\$50,411,831	\$21,143,361	2.38	\$24,451,517	\$54,754,547	0.45
Wattsmart Business	Motors	\$440,935	\$168,059	2.62	\$440,935	\$206,339	2.14	\$485,029	\$206,339	2.35	\$918,000	\$131,225	7.00	\$440,935	\$1,025,736	0.43
Wattsmart Business	Refrigeration	\$256,033	\$267,431	0.96	\$256,033	\$231,638	1.11	\$281,637	\$231,638	1.22	\$877,664	\$245,700	3.57	\$256,033	\$1,001,895	0.26
Wattsmart Business	Water Heating	\$35,454	\$58,052	0.61	\$35,454	\$109,137	0.32	\$39,000	\$109,137	0.36	\$128,626	\$131,499	0.98	\$35,454	\$143,252	0.25

Table 8: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2022

Table 9: Wattsmart Business Measure Category Level Cost-Effectiveness Results, PY2023

Program	Measure Category	Utility Benefits (\$)	Utility Costs (\$)	Utility Cost Test	TRC Benefits (\$)	TRC Costs (\$)	TRC Test	P-TRC Benefits (\$)	P-TRC Costs (\$)	P-TRC Test	Participant PV Benefits (\$)	Participant PV Costs (\$)	PCT Test	Ratepayer PV Benefits (\$)	Ratepayer PV Costs Costs (\$)	RIM Test
Wattsmart Business	Building Shell	\$206,896	\$169,734	1.22	\$206,896	\$440,386	0.47	\$227,585	\$440,386	0.52	\$521,723	\$498,921	1.05	\$206,896	\$581,683	0.36
Wattsmart Business	Compressed Air	\$1,122,446	\$492,618	2.28	\$1,122,446	\$700,286	1.60	\$1,234,691	\$700,286	1.76	\$1,712,795	\$566,919	3.02	\$1,122,446	\$1,956,628	0.57
Wattsmart Business	Energy Mngmt.	\$5,761,937	\$4,697,561	1.23	\$5,761,937	\$8,293,968	0.69	\$6,338,131	\$8,293,968	0.76	\$13,389,823	\$8,059,155	1.66	\$5,761,937	\$14,836,955	0.39
Wattsmart Business	Farm & Dairy	\$136,885	\$85,692	1.60	\$136,885	\$132,493	1.03	\$150,574	\$132,493	1.14	\$241,679	\$117,845	2.05	\$136,885	\$286,219	0.48
Wattsmart Business	Food Service	\$174,274	\$88,310	1.97	\$174,274	\$174,899	1.00	\$191,701	\$174,899	1.10	\$404,723	\$164,035	2.47	\$174,274	\$459,187	0.38
Wattsmart Business	HVAC	\$6,867,940	\$6,919,033	0.99	\$6,867,940	\$12,111,905	0.57	\$7,554,734	\$12,111,905	0.62	\$22,295,663	\$15,265,248	1.46	\$6,867,940	\$24,611,404	0.28
Wattsmart Business	Irrigation	\$817,342	\$431,826	1.89	\$817,342	\$648,094	1.26	\$899,077	\$648,094	1.39	\$1,629,379	\$596,904	2.73	\$817,342	\$1,834,285	0.45
Wattsmart Business	Lighting	\$20,705,735	\$7,592,667	2.73	\$20,705,735	\$18,460,105	1.12	\$22,776,309	\$18,460,105	1.23	\$40,695,384	\$16,757,618	2.43	\$20,705,735	\$44,119,990	0.47
Wattsmart Business	Motors	\$436,363	\$159,989	2.73	\$436,363	\$195,792	2.23	\$480,000	\$195,792	2.45	\$876,714	\$122,732	7.14	\$436,363	\$980,285	0.45
Wattsmart Business	Refrigeration	\$291,341	\$290,745	1.00	\$291,341	\$250,409	1.16	\$320,475	\$250,409	1.28	\$972,233	\$259,259	3.75	\$291,341	\$1,109,593	0.26
Wattsmart Business	Water Heating	\$35,104	\$54,553	0.64	\$35,104	\$102,331	0.34	\$38,614	\$102,331	0.38	\$122,002	\$122,988	0.99	\$35,104	\$135,940	0.26