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IDAHO PUBLIC
UTILITIES COMMISSION

July 15, 2021

VIA ELECTRONIC DELIVERY

Jan Noriyuki
Commission Secretary
Idaho Public Utilities Commission
11331 W. Chinden Blvd
Building 8 Suite 201A
Boise, ID 83714

**Re: CASE NO. PAC-E-21-16
IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER
FOR AUTHORITY TO IMPLEMENT A BATTERY DEMAND RESPONSE
PROGRAM**

Dear Ms. Noriyuki:

Please find for filing Rocky Mountain Power's Application in the above-referenced matter.

Informal inquiries may be directed to Ted Weston, Idaho Regulatory Manager at (801) 220-2963 or Michael Snow, Customer Innovation Regulatory Manager at (801) 220-4214.

Very truly yours,

A handwritten signature in blue ink that reads "Joelle Steward". The signature is fluid and cursive.

Joelle R. Steward
Vice-President of Regulation

Enclosures

Emily Wegener, ISB# 11614
Rocky Mountain Power
1407 West North Temple, Suite 320
Salt Lake City, Utah 84116
Telephone: (801) 220-4526
Email: Emily.Wegener@PacifiCorp.com

Attorney for Rocky Mountain Power

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF THE APPLICATION)
OF ROCKY MOUNTAIN POWER FOR) CASE NO. PAC-E-21-16
AUTHORITY TO IMPLEMENT A)
BATTERY DEMAND RESPONSE) APPLICATION
PROGRAM)**

Rocky Mountain Power, a division of PacifiCorp (the “Company”), hereby petitions the Idaho Public Utilities Commission (the “Commission”) for authority to implement a Class 1 battery demand response program (“Wattsmart Battery” or “Program”) under a new Schedule 114 load management tariff within the demand side management (“DSM”) portfolio.

In support of this Application, Rocky Mountain Power states:

1. Rocky Mountain Power is authorized to do business in the state of Idaho as a public utility providing retail electric service to approximately 86,500 customers. Rocky Mountain Power is a public utility subject to the jurisdiction of the Commission pursuant to Idaho Code § 61-129.

2. This Application is filed pursuant to Idaho Code §§ 61-301, 61-307, 61-622, and 61-623. In particular, Idaho Code § 61-623 empowers the Commission to determine the propriety of proposed rate schedules, §§ 61-307 and 61-622 require Commission approval

prior to any change in rates, and § 61-301 requires Idaho retail electric rates to be just and reasonable.

3. The Company seeks a flexible tariff, as permitted by the Commission in earlier dockets, which will allow the company to “adjust Program details without advance Commission approval if the Company informally obtains Staff input and resolves any Staff concerns before implementing the change.”¹ A flexible tariff will allow the Company to manage and publish Program details on the Company’s website, with hard copies provided to customers upon request, while allowing for adequate Staff input. Before the Company makes Program changes, it will provide Staff with its intended modifications and allow sufficient time to resolve any Staff concerns. After Staff’s concerns are resolved, the Company will post the final set of changes for at least 45 days before the changes are to take effect.

BACKGROUND

4. The Company has offered a variety of demand side management (“DSM”) programs to its customers since the 1970s. DSM programs offered by Rocky Mountain Power are designed with the goal to be cost-effective. On March 2, 2006, the Commission approved cost recovery of DSM programs through Schedule 191 applied to customers’ bills effective May 1, 2006. Schedule 191 allows Idaho customers to participate in cost-effective DSM programs while providing the Company the ability to recover the costs of providing these programs.

¹ *In the Matter of PacifiCorp DBA Rocky Mountain Power’s Application to Revise Electric Service Schedule 115 Finanswer Express*, Case No. PAC-E-12-10, Order No. 32594 at 5 (July 13, 2012). The Company’s flexible tariff process is described in detail in the testimony accompanying the Company’s application in Case No. PAC-E-12-10, Direct Testimony of Nancy M. Goddard at 16-18 and Attachment C thereto.

PROGRAM OVERVIEW

5. The Wattsmart Battery Program will promote and incentivize the installation of individual batteries for system-wide integration which will facilitate grid management. The Company's 2019 Integrated Resource Plan includes nearly 600 megawatts ("MW") of battery storage capacity by 2024. Establishing Wattsmart Battery will ensure that battery equipment installed by customers behind the meter is integrated safely into the Company's systems and will provide benefits for both the customer and the grid. Leveraging the batteries from the Wattsmart Battery Program will create opportunity in the following areas:

- **Utility Grid Management** – The Wattsmart Battery Program will enable the Company to utilize qualified batteries for utility grid management 24 hours per day/365 days per year, providing year-round value to effectively manage the electric grid. The batteries may be utilized for traditional demand response, frequency reserve, contingency reserve, regulation reserves, regional grid management, backup power and other ancillary benefits in addition to reducing peak load on the electric system. Initial parameters used to dispatch the batteries for grid management are identified in the Dispatch Period section below. As the Program matures, dispatch parameters may change for continual improvement. Initially, batteries will be used to off-set customers' load, but as the Program evolves and matures, the Company intends to add other capabilities, such as allowing customers to charge batteries during the day with excess solar and export the solar energy during peak times, in order to maximize benefits for all parties.
- **Load Shaping** – The Company will help customers optimize batteries in coordination with daily peak and off-peak periods. For example, a customer with solar will charge the battery with any excess generation during the middle of the day, and in turn will utilize the battery to offset energy use during peak periods. Partnering with customers with batteries to manage excess solar during the day and peak periods in the evenings will provide the greatest benefits for customers and the utility grid.
- **Utility Integration of Behind-the-Meter Batteries** – The battery storage industry is still in its infancy, and there is a lack of standards for utility grid integration from both

a safety and operational perspective. This program will help provide battery manufacturers guidance on how to qualify to participate in a utility grid optimized battery solution.

CUSTOMER PARTICIPATION AND ELIGIBILITY

6. The Wattsmart Battery Program will be available to all retail tariff customers taking service under the Company's electric service schedules listed on Schedule 191 – Customer Efficiency Services Rate Adjustment. Both residential and commercial customers may participate; however, the Company anticipates that initially, participation will come from residential customers with solar.

7. Customers may participate by installing eligible battery equipment and allowing the Company to utilize the battery for grid management. Customers will be compensated for enrolling through an enrollment incentive and an annual bill credit. Customers will be required to commit to the Program for a minimum of four (4) years to receive an enrollment incentive. After the commitment term, customers will have the opportunity to receive an annual incentive for their continued participation beyond the initial commitment term. The commitment term may change depending on Program needs.

8. Participating customers will also be required to provide information including their name, business (if applicable), installation address, and contact information to assist with eligibility and installation verification activities prior to enrolling. If a participating customer chooses to end their participation during their initial commitment period, the Company may require the participating customer to return their enrollment incentive on a pro-rated basis.

9. Batteries must meet program participation requirements to qualify for an incentive, including the integration into the Company's Distributed Battery Grid Management

Solution (“DBGMS”). Battery manufacturers who have a product capable of meeting the requirements for utility-controlled demand response and who are willing to work with the Company and its partners to integrate into the DBGMS can qualify their batteries for participation in the Wattsmart Battery Program.

INCENTIVE STRUCTURE

10. Wattsmart Battery incentives will be available to customers with installed batteries capable of communicating with the Company’s DBGMS. An up-front enrollment payment incentive will be offered to customers who commit to the minimum term with a newly purchased battery. The minimum term will initially be set at four years but may change as the Program evolves. Program participants will also receive an annual bill credit incentive for their continued to participation.

11. Customers with pre-existing eligible batteries may also participate in the Program but will not be required to commit to a minimum term. Instead, due to free ridership concerns, customers with existing eligible batteries may start off at the increased annual bill credit incentive for as long as they remain enrolled.

12. Customers will receive their enrollment incentive as a direct payment once eligibility and installation have been verified. Annual participation incentives will be given as monthly bill credits. Table 1 provides the maximum incentive levels for Program enrollment and annual participation incentives.

13. Initially, residential incentives will be split between customers with and without existing solar. The incentive for customers with solar installed prior to September 2021 will be the maximum amount of \$150/kilowatt (“kW”) multiplied by the commitment term. The

offered incentive for customers with solar installed after August 2021 will be set at \$100/kW multiplied by the commitment term.

Table 1 – Wattsmart Battery Incentives

Load Management Program	Participating Equipment	Maximum Incentive “up to”		
		Enrollment Incentive ²	Annual Participation Incentive During Commitment Term ³	Annual Participation Incentive ⁴
Wattsmart Battery	Residential Batteries	\$150/kW x Annual Commitment Term	\$15/kW	\$50/kW
	Commercial Batteries	\$150/kW x Annual Commitment Term	\$15/kW	\$50/kW
	Custom	Custom		

14. Enrollment incentives will be based on the kW capacity of the enrolled battery, multiplied by the commitment term. For example, if a residential customer enrolls a 5kW battery with a commitment term of 4 years, their enrollment incentive will be \$3,000 (5kW x \$150 x 4 years). During the commitment period for years 2 to 4, the program participation annual incentive would be \$75 (5kW x \$15). If the same customer continues to participate beyond the 4-year commitment term, their annual participation incentive could be up to \$250 (5kW x \$50). If a customer opts out of participating after their commitment term, their annual participation incentive will be pro-rated.

15. At the Company’s discretion, custom incentives and commitment terms may be considered for customers with custom battery projects or large capacity batteries. The Company will evaluate incentive levels and program requirements periodically and may adjust

² Enrollment Incentives will be capped at 70% of battery equipment costs and available for new battery purchases only.

³ Participation Incentives are eligible to be applied towards monthly energy charges. Customers will still be responsible for fixed customer charges.

⁴ Applicable to new batteries after the commitment term or existing batteries where the enrollment incentive and commitment term is not applicable. Participation Incentives are eligible to be applied towards monthly energy charges. Customers will still be responsible for fixed customer charges.

them through the appropriate process based upon various factors, such as battery market changes, federal and state incentive levels, participation numbers and cost effectiveness.

16. As an alternative solution for customers who want batteries, but do not have the funds to cover the associated equipment and installation costs, the Company may provide a lease type agreement option, where the Company will work with qualified trade-allies to install and maintain the batteries.

PROJECTED PARTICIPATION AND COSTS

17. The Wattsmart Battery Program is forecast to achieve approximately 10 MW of battery demand response by 2029. The majority of expenditures in the initial years of the program are anticipated to be customer enrollment incentives. Table 2 provides a breakdown of estimated program costs by category for 2022 through 2024. Table 3 provides a 6-year outlook of projected participation.

Table 2 – Estimated Program Costs by Category

Cost Category	2022	2023	2024
Program Administration	\$5,000	\$10,000	\$10,000
Software Costs	\$5,000	\$15,000	\$31,000
Marketing	\$5,000	\$5,000	\$5,000
Total Incentives	\$300,000	\$600,000	\$960,000
Total Program Costs	\$315,000	\$630,000	\$1,006,000

Table 3 – Estimated 6-Year Program Participation

Year	Estimated Battery Participation	Estimated kW - Cumulative
2022	100	500
2023	200	1,500
2024	300	3,000
2025	400	5,000
2026	475	7,375
2027	475	9,750

QUALITY ASSURANCE AND ELIGIBLE EQUIPMENT

18. In order for the Company to communicate with installed battery equipment, participating customers must have a reliable internet connection and Wi-Fi network and any other related equipment or system elements on the premises that may be required by the Company or equipment manufacturer. Battery manufacturers will be eligible to participate in the Program as long as they are willing to allow their batteries to be integrated into the Company's DBGMS and meet equipment eligibility. In order to justify the incentives being provided and to maintain cost effectiveness, the batteries must be able to provide daily load cycling, frequency response, and parameters identified below.

19. At the outset of the Wattsmart Battery program, eligible equipment may consist of the following:

- Ability to integrate in the DBGMS
- Utility grade batteries with a minimum of 4 kW / 10 kWh
- Minimum of 10-year battery life (warranty)
- Minimum of 7,500 battery cycle life to accommodate for daily load cycling
- Ability to charge/discharge multiple times a day
- Full dispatch control by PacifiCorp to meet the needs of the program
- Proper UL or equivalent safety certifications for residential and commercial applications

As technology evolves and new products become available, it is anticipated more batteries will become eligible. The Company will maintain an updated list of eligible batteries and other requirements for participation on the Wattsmart Battery program website.

DISPATCH PERIOD

20. The Company shall have the right to dispatch the Wattsmart Battery system based on the following criteria:

- Daily load cycling for peak management
- Utilized for traditional demand response, frequency reserve, contingency reserve, regulation reserves, regional grid management, backup power and other ancillary needs.
- Dispatch Days: Monday through Sunday, including holidays, year-round.
- Dispatch Duration: Dispatches may be held multiple times per day up to two full duty cycles of the battery.

At the outset of the Wattsmart Battery Program, batteries will be dispatched to off-set customers' load, as discussed in the Load Shaping paragraph above. As the Program evolves and matures, the Company intends to add capability to the timing of dispatch, such as charging batteries during the day with excess solar and exporting the solar energy during peak times, in order to maximize benefits for all parties.

21. The Company may dispatch batteries to the system as necessary without advanced notice. The Company will not drain batteries below 10 percent capacity to ensure customers retain a minimum level for emergency backup. The DBGMS and integration into the Company's Energy Management System makes this possible to manage. Additionally, Wattsmart Battery dispatch events will be managed to minimize use of the battery system during or prior to an event that is expected to cause system outages.

22. In the event of a local outage, the battery will be used as backup power for the customer. While there are many factors that influence customer load, including battery size, house size, solar array, time of year, etc., it is estimated that 10 percent capacity will provide 1-8 hours of emergency backup power for an average customer. The Company will continually evaluate this percentage and update if necessary, to ensure the batteries are available when needed for customers.

NEW SCHEDULE 114 TARIFF

23. Attached hereto as Exhibit A is a proposed new Electric Service Schedule 114 – Load Management Program, to enable the implementation of the Class 1 Wattsmart Battery program. Additionally, consistent with the flexible tariffs for the Company’s Class 2 DSM programs, attached hereto as Exhibit B are the proposed incentive tables and other program information that will be managed pursuant to the flexible tariff process.

TRADE ALLY NETWORK

24. The Company may establish and utilize a qualified Trade Ally Network to promote the Wattsmart Battery program, educate customers on batteries, and install the battery equipment for customers. Establishing this network may include identifying and recruiting vendors that can comply with all participation requirements, providing Program and technical training to vendors, and providing vendor sales training and support on an ongoing basis. For the first year or two of the Program the Company will seek to qualify and train trade allies while the Program is ramping up.

25. Participating vendors may have their information promoted on the Company’s website and may have access to marketing materials and support, ongoing training, and program tools. Participating vendors may also receive periodic vendor performance details to provide feedback and encourage vendors to continually improve. Highly successful vendors may receive additional benefits, including improved visibility and enhanced co-branding with the Company. Examples of performance metrics that may entitle vendors to added benefits are as follows:

- Industry Certification
- Customer satisfaction
- Project Quality Assurance
- Level of Participation
- Program satisfaction

COST EFFECTIVENESS

26. The cost effectiveness analysis for the Wattsmart Battery program is attached hereto as Confidential Exhibit C, based on the maximum “up to” incentive levels. As avoided costs are considered proprietary on load control programs, the cost effectiveness results are provided below with a “pass” designation, which equates to a benefit to cost ratio of 1.0 or better. Due to the nature of demand response, and consistent with the cost effectiveness methodology for other demand response programs, the Participant Cost Test is not applicable. The Wattsmart Battery program is expected to be cost effective under all other scenarios.

Table 4 – Wattsmart Battery Program Level Cost Effectiveness Results

Benefit/Cost Test	Benefit/Cost Ratio
PacifiCorp Total Resource Cost Test (PTRC) + Conservation Adder	Pass
Total Resource Cost Test (TRC) No Adder	Pass
Utility Cost Test (UCT)	Pass
Rate Impact Test (RIM)	Pass
Participant Cost Test (PCT)	N/A

COMMUNICATIONS

27. Communications regarding this Application should be addressed to:

Ted Weston
Michael Snow
1407 W. North Temple, Suite 330
Salt Lake City, Utah 84116
Telephone: (801) 220-2963
Email: ted.weston@pacificorp.com
michael.snow@pacificorp.com

Emily Wegener
1407 W. North Temple, Suite 320
Salt Lake City, Utah 84116
Telephone: (801) 220-4526
Email: emily.wegener@pacificorp.com

In addition, the Company respectfully requests that all data requests regarding this matter be addressed to one or more of the following:

By e-mail (preferred)

datarequest@pacificorp.com

By regular mail

Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232

MODIFIED PROCEDURE


28. The Company believes that consideration of the proposals contained in this Application do not require an evidentiary proceeding, and accordingly requests that this Application be processed under Modified Procedure, RP 201 *et seq.* allowing for consideration of these issues by written submissions rather than by an evidentiary hearing. If, however, the Commission determines that an evidentiary proceeding is required the Company stands ready to provide supporting testimony.

CONCLUSION

WHEREFORE, Rocky Mountain Power respectfully requests that the Commission issue an Order authorizing the implementation of a battery demand response program under the new Electric Service Schedule 114 - Load Management Program within the demand side management portfolio as described herein, with an October 15, 2021, effective date.

DATED this 15th day of July, 2021.

Respectfully submitted,

By 

Emily Wegener
Attorney for Rocky Mountain Power

ROCKY MOUNTAIN POWER
ELECTRIC SERVICE SCHEDULE NO. 114
STATE OF IDAHO

Load Management Program

APPLICABLE: This tariff is applicable to eligible Customers who have premises located in designated areas. Customers served by the Company in the state of Idaho taking service under the Company's electric service schedules listed on Schedule 191 – Customer Efficiency Services Rate Adjustment located within the designated areas are eligible to participate in a Load Management Program (Program).

PURPOSE: To manage electric loads through a Company-dispatched Direct Load Control System (System).

PROGRAM DESCRIPTION: A detailed description of the Program(s) is found on the Company website.

CUSTOMER PARTICIPATION: Participating premises are considered Program participants for the duration of the Program(s). Customers may cancel their participation in the Program(s) at any time. The Company or its Program contractors shall have the right to qualify program participants, at their sole discretion based on criteria the Company or Program contractors consider necessary to ensure the effective operation of the Program(s) and utility System. Program details can be viewed on the Company's website.

PROVISIONS OF SERVICE:

1. Qualifying Equipment or Services, incentive amounts, and participation procedures will be listed on the Load Management Program website.
2. Incentive delivery may vary by technology and may include cash payments and/or bill credits.
3. Incentives may be offered year-round or for selected time periods.
4. Incentive offer availability, incentive levels, and Qualifying Equipment or Services may be changed to reflect changing codes and standards, sales volumes, quality assurance data, or to enhance program cost effectiveness.
5. All changes will occur with a minimum of 45 days notice and be prominently displayed as a change on the Company's website.

ELECTRIC SERVICE REGULATIONS: Service under this Schedule will be in accordance with the terms of the Electric Service Agreement between the Customer and the Company. The Electric Service Regulations of the Company on file with and approved by the Public Service Commission of the State of Utah, including future applicable amendments, will be considered as forming a part of and incorporated in said Agreement.

Idaho Load Management Program

This document includes the following sections:

- Definitions of terms used in Schedule 114 and other program documents
- Incentives – General Information
- Dispatch Parameters
- Incentive Tables

DEFINITIONS

Annual Participation Incentive: Incentives participating customers may receive for ongoing active participation in a Load Management program.

Available Dispatch Hours: Daily timeframe within which the Company may dispatch its load control system(s).

Customer: Any party who has applied for, been accepted, and receives service at the real property, or is the electricity user at the real property.

Dispatch Days: The days upon which the Company may or may not dispatch its load control system.

Dispatch Duration: The duration of time that load control events may be dispatched for.

Dispatch Parameters: The criteria within which the Company may dispatch its load control system(s).

Dispatch Period: The calendar year timeframe within which the Company may dispatch its load control system(s).

Enrollment Incentive: Upfront incentives participating customers may receive upon their enrollment in a Load Management program.

Incentive: Payments of money or bill credits made by Company to Owner or Customer for participation in a Load Management offer.

Incentive Application: An application submitted by Owner or Customer to Company for Incentives.

Incentive Offer Letter: An offer made by Company and acknowledged by Owner or Customer providing for Company to furnish Incentives for a Load Management Project.

Maximum Dispatch Hours: The maximum amount of time the Company may dispatch its load control system annually.

Owner: The person who has both legal and beneficial title to the real property and is the mortgager under a duly recorded mortgage of real property, the trustor under a duly recorded deed of trust.

INCENTIVES – GENERAL INFORMATION

Incentives for Measures Listed in the Incentive Tables

Dollar values listed in the incentive tables are the maximum amounts approved for programs. Incentive amounts that customers may actually receive are managed and available on the Company’s website, which may be less than the approved maximum amounts. Incentives are subject to change through notices posted on the Company’s website.

Custom Incentives

Where custom is listed in the incentive tables, custom incentives may be considered for customers with custom projects.

Program Contractors

Program contractors may provide additional consideration, at no additional cost to the Company or its customers, to encourage enrollment in a Load Management Program. Such consideration may include, but is not limited to, gift cards or other efforts used to increase Customer interest in a program.

DISPATCH PARAMETERS

The Company shall have the right to dispatch System(s) according to the following criteria:

	Wattsmart Batteries
Dispatch Period	January 1 through December 31
Available Dispatch Hours	12:00am to 11:59pm Mountain Time
Maximum Dispatch Hours	N/A
Dispatch Days	Monday through Sunday
Dispatch Duration	Events may be held multiple times per day up to two full battery duty cycles

In the event of a system emergency, Rocky Mountain Power may, at its discretion, expand the dispatch criteria beyond the parameters listed. Emergency events may be used to satisfy requirements of the North American Electric Reliability Corporation (NERC) standard BAL-002-WECC-2 for Contingency Reserve Obligation (CRO) and may be deployed when the utility is experiencing a qualifying event as defined by the Northwest Power Pool.

INCENTIVE TABLES

Table 1 – Wattsmart Batteries

Load Management Program	Participating Equipment	Maximum Incentive “up to”		
		Enrollment Incentive ¹	Annual Participation Incentive During Commitment Term ²	Annual Participation Incentive ³
Wattsmart Batteries	Residential Batteries	\$150/kW x Annual Commitment Term	\$15/kW	\$50/kW
	Commercial Batteries	\$150/kW x Annual Commitment Term	\$15/kW	\$50/kW
	Custom	Custom		

1. Enrollment Incentives are capped at 70% of battery equipment costs and available to new battery purchases only.
2. Participation Incentives are eligible to be applied towards monthly energy charges. Customers will still be responsible for fixed customer charges
3. Applicable to new batteries after the commitment term or existing batteries where the enrollment incentive and commitment term is not applicable. Participation Incentives are eligible to be applied towards monthly energy charges. Customers will still be responsible for fixed customer charges.

**THIS ATTACHMENT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER SEPARATE
COVER**