



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF COMMERCE
Office of Consumer Services

MICHELE BECK
Director

To: Utah Public Service Commission

From: Office of Consumer Service
Michele Beck, Director
Cheryl Murray, Utility Analyst

Date: July 12, 2018

Subject: Office of Consumer Services Initial Comments Regarding Rocky Mountain Power's First Annual Sustainable Transportation and Energy Plan Act (STEP) Program Status Report. Docket No. 18-035-16

Introduction and Background

On April 30, 2018 Rocky Mountain Power (Company) filed with the Public Service Commission (Commission) its First Annual Sustainable Transportation and Energy Plan Act (STEP) Program Status Report (Status Report) as required by Commission orders in Docket No. 16-035-36. On May 9, 2018 the Commission issued a Notice of Amended Comment Period allowing parties to file comments on or before July 12, 2018 and reply comments on or before July 27, 2018. Pursuant to the Commission's notice the Office provides the following initial comments.

Discussion

The overall STEP Program consists of a number of individual Projects which were approved over four phases in Docket 16-035-36. In that approval process the Company was required to file an annual report on the STEP Program and associated dollars. The Status Report contains the overall calendar year 2017 monthly accounting detail for the STEP Program as well as information on individual STEP projects. The Report uses the Reporting Template created as a joint effort by the Company and parties and approved by the Commission in a letter dated October 12, 2017. The Company notes that the Status Report is considered a work in progress and modifications may be made to ensure its usefulness.

Individual Projects Discussion

The Status Report covers the entire STEP Program and consists of 14 individual project Reports. The specific project information included varies by project but generally includes the project name, objectives, accounting and key findings. The fourteen projects are:

- 1) Electric Vehicle Charging Infrastructure
- 2) Woody-waste Co-Fire Biomass at Hunter Unit 3
- 3) Hunting Plant Neural Network Optimization Project
- 4) Alternative NOx Reduction
- 5) Evaluation for CO2 Enhanced Coal Bed Methane Recovery
- 6) Cryogenic Carbon Capture
- 7) CarbonSAFE Pre-Feasibility Study – Phase 1
- 8) Feasibility Assessment of Solar Thermal Integration – Hunter Plant
- 9) Circuit Performance Meters (Substation Metering)
- 10) Commercial Line Extension Pilot Program
- 11) Gadsby Emissions Curtailment
- 12) Battery Storage – Panguitch Solar and Energy Storage Project
- 13) MicroGrid Project
- 14) Smart Inverter Project

2017 was the initial year of the STEP Program and the Status Report covers the period ending December 31, 2017.

A number of the projects are slated to begin after 2017 so little substantive information is included in the Report for projects such as:

Woody-waste Co-Fire Biomass at Hunter Unit 3.

Some contracting has been completed in 2017 but the actual tests will be conducted in 2018. No accounting information is provided but the Company notes the majority of project spending is expected to occur during CY 2018.

Evaluation for CO2 Enhanced Coal Bed Methane Recovery.

Delivery dates of project milestones are in 2018 and beyond.

Feasibility Assessment of Solar Thermal Integration – Hunter Plant.

This project is designed to investigate the potential of integrating solar thermal collection to provide steam and/or feedwater heating into the Hunter 3 boiler/feedwater cycle. The project is said to be on schedule and set to begin in 2019. No spending is reported as of December 31, 2017.

MicroGrid Project

Work on the MicroGrid Project will occur in 2018 and beyond.

Smart Inverter Project

Work on the Smart Inverter Project is scheduled for 2018.

For other projects the work is on-going and more information is provided in the Status Report as described below.

Electric Vehicle Charging Infrastructure Project

The Electric Vehicle (EV) Charging Infrastructure (EVCI) Project includes several components such as: Electric Vehicle Time of Use Pilot – Schedule 2E; Plug-in Electric Vehicle Pilot Incentive Program – Schedule 120; and Plug-In Electric Vehicle Load Research Study Program – Schedule 121. Thus, creating different incentive opportunities for different customer classes. The EVCI project has an annual budget of \$2 million for five years. The \$2 million dollars must be used or committed to projects within the calendar year.

Although not actively recruited, fourteen customers received incentives for participating in the Time of Use (TOU) Pilot program with 2017 funds, apparently through locating the program information on the Company's website. Recruitment efforts for participants in the load research study began in 2018. The Company's plan is to wait until those recruitment activities subside before actively promoting the separate TOU program.

The Plug-In Electric Vehicle Pilot Incentive Program creates opportunities for non-residential and multi-family locations to receive incentives for installing chargers. Non-residential AC Level 2 or DC Fast Chargers and Multi-Family DC Fast Chargers. Grant-Based Customer Projects and Partnerships are also available for those customers.

Within the overall \$2 million annual budget, the Time of Use Pilot, Non-Residential and Multi-family AC Level 2 chargers and DC Fast chargers have been allocated annual incentive caps. After September 30th of each year any remaining funds from those project categories may be reallocated to Grant-based custom projects and partnerships. The 2017 Report identifies the amount committed to Grant-based custom projects as \$1,359,874. This committed¹ amount includes 2017 unused funds transferred from other EVCI categories as well as the \$500,000 annual budget for custom projects.

¹ Committed custom projects have received Company approval but may evolve and are expected to be completed throughout 2018.

Table 1 – Program Accounting. Table 1 includes a breakout of the various parts of the overall EVCI project. The Table has a column for 2017 Calendar Year Expenditures and a column titled 2017 Budget Costs/Commitments.

Although there are footnotes as explanation, the Office found this Table to be unclear as to the distinction between the two columns. The Office recommends that the Company meet with interested parties prior to the next report to discuss modifications to clarify the information provided in Table 1.

Table 3 – Custom Projects. The Company provides the incentive amount, a brief description of the project and the equipment type. Footnote 4 to Table 3 indicates that Custom projects “may evolve and are expected to be completed throughout 2018. Actual incentive amounts and installed equipment will be included in the next reporting period for completed customer projects”.

The Office understands that the amount of time required to complete projects will vary, even for similar projects. However, the Office asserts that it will be beneficial to gain some understand of that time requirement and recommends that the date of acceptance of customer projects be included in Table 3.

Huntington Plant Neural Network Optimization Project.

“Key Challenges, Finding, Results and Lessons Learned” on pages 4.0 and 4.2 identifies issues that have arisen with this project, some of which have been resolved while others are still being worked on. The Company reports that the initial phases have shown reduction benefits in both NO_x and CO, compared to three months of baseline data.² The Company states that the “next steps appear promising”.

Charts 1, 2, 3 and 4 include: Average of NO_x and Average of CO. In two of the charts NO_x is the red line and in two of the charts NO_x is the blue line. Similarly CO is the blue line in two charts and the red line in two charts. Although a minor detail the Office suggests consistency in the color coding of these charts would be helpful.

The Company indicates it is evaluating a similar Neural Network Optimization on Huntington Unit 1, due to the early positive result of this project. The final study on this project has a target date of December 31, 2019.

Alternative NO_x Reduction Project.

The objective of this project was to find a cost effective technology(ies) that could achieve or approach the NO_x emissions of a Selective Catalytic Reduction (SCR) that could be demonstrated at the Hunter or Huntington power plants. 2017 accounting for the project indicates an annual collection (budget) of \$125,000 with external OMAG expenses of

² See Chart 1 page 4.3. The Company notes that the three-month baseline data was in the spring and loads were typically lower. Page 4.2.

\$131,405. The Company completed a competitive request for proposals (RFP) and based on the evaluations of the responses it was determined that none of the vendors were capable of meeting the project's objectives within budget. Thus, the Company recommends abandoning this project and reallocating the funds to expand other STEP projects. The Company is working on a proposal which it expects to file for Commission approval in CY 2018.

The Office agrees that ratepayers' funds should not be used to pursue projects where it has been determined that project objectives cannot be met but suggests that the funds should only be reallocated (as opposed to being left unspent) to the extent that the use of such funds provides ratepayer benefits and is in the public interest. The Office will review any proposal for reallocation when it is filed.

Cryogenic Carbon Capture

The objective of this project is to continue the development and demonstration of the promising Cryogenic Carbon Capture technology. There are two primary phases, the development phase and the demonstration phase. The phases are to be conducted by the contractor in parallel with a proposed DOE project to mature the technology and gather information in preparation to scale up the technology. In 2018 third party engineering services will be obtained to assess the scalability of the technology for complete processing of the flue gas at utility power plants.

CarbonSAFE pre-Feasibility Study – Phase 1.

The Company co-funded participation in a University of Utah pre-feasibility study to evaluate the development of commercial scale carbon capture and sequestration (CCS) storage in Utah. The Company states it now has a high level cost estimate of the cost to construct a carbon dioxide capture facility at one of the existing Utah coal fired power plants. As of the time of the Status Report, the results of the pre-feasibility study are pending. If appropriate, Phase II would be to conduct a feasibility study as part of a funding opportunity from the Department of Energy.

Circuit Performance Meters (Substation Metering).

The objective is to deploy an advanced substation metering program that includes installing advanced metering infrastructure on approximately fifty circuits connected to distribution substations where limited or no existing communications exist. Installation of advanced meters, setting up remote communications paths and the purchase of data management analytics tool to automatically collect, analyze, interpret and report on the available data will enable higher data visibility on the distribution system.

The Company explains that the contract for the data analytics software was not executed until March 2018. Also, only two meter installations were completed in 2017 rather than the three that were budgeted. Thus, creating a variance for the 2017 budget. The Report

indicates that the installation of metering on 25 circuits in 2018 and 23 circuits in 2019 is on schedule.

Commercial Line Extension Pilot Program

This Project is designed to incentivize developers of commercial/industrial property to install electrical backbone within their developments, and provide for Plug-in Electrical Vehicle charging stations. It is believed that this incentive will cause developers to look at a long term build out of their development and fund facilities to meet those needs rather than a less optimal piece meal approach. 2018 will be the first complete year of this program. \$16,905 was committed in 2017 but not paid until 2018.

Gadsby Emissions Curtailment

This Project is intended to help improve air quality by curtailing Gadsby emissions during winter inversion air quality events as defined by the Utah Division of air Quality (DAQ). A total of \$500,000 are allocated during the 5-year term of the STEP Program. In 2017 during DAQ posted air quality events it was not economic for Gadsby to operate thus no STEP funds were utilized for this project.

Battery Storage – Panguitch Solar and Energy Storage Project

The Company plans to install a five megawatt-hours battery energy storage system to resolve voltage issues on the Sevier-Panguitch 69 kilovolt transmission line. During peak-loading conditions voltage issues occur. To reduce loading on the power transformer and improve voltage conditions a stationary battery system will be connected to the 12.5 kilovolt distribution circuits that are connected to the Panguitch substation.

The project accounting for 2017 is unclear. The Annual Collection (Budget) is \$500,000. The Annual Spend and Committed Funds are each identified as \$331,995 with a subtotal of \$331,995. It is possible that the Company spent \$331,995 in 2017 and also committed that exact amount. As explained below in our comments related to the Project Milestones the Office was unable to determine how the money was spent.

Project Accounting:

	2017
Annual Collection (Budget)	\$500,000
Annual Spend (Capital)	\$331,995
Committed Funds	\$331,995
Uncommitted Funds	
External OMAG Expenses	
Subtotal	\$331,995

As noted \$331,995 has been spent and committed under the 2017 budget of \$500,000. According to the Project Milestones chart all delivery dates are in 2018 or TBD. The first item in the Milestones section is to “Award an engineering, procurement and construction (EPC) contract” but no delivery date is identified. The Status/Progress section notes “Pre-bid meeting scheduled for 4/17/2018”.

Project Milestones:*

Milestones	Delivery Date	Status/Progress
Award an engineering, procurement and construction (EPC) contract.		Pre-bid meeting scheduled for 4/17/2018.

There is an asterisk in the Project Milestones:* heading but no detail associated with the asterisk. Perhaps that is an important missing piece of information. The Office recommends that the Company clarify the accounting for the Battery Storage project in reply comments in this docket.

Operations, Maintenance, Administrative and General Costs (OMAG) Reporting Requirement

The Commission’s order dated May 4, 2017 in Docket Number 16-035-36 reads, in part:

“...we find value in PacifiCorp tracking and reporting the OMAG expenses associated with STEP programs. Based on the testimony of the parties, we conclude all STEP related OMAG expenses should be included in the STEP budget because they are

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integral to the execution of the programs. Accordingly, PacifiCorp shall book all STEP related expenses to the STEP budget and maintain records that will allow any ongoing STEP program to be properly accounted for during the next general rate case.”

The Office has not reviewed the Company’s records to determine if all STEP related OMAG expenses have been properly accounted for. However, a line item for external OMAG expenses is included in the project accounting charts for each project.³ In some cases there are no external OMAG expenses in 2017.

Recommendation

The Office recommends that the Commission acknowledge Rocky Mountain Power’s First Annual Sustainable Transportation and Energy Plan Act Program Status Report. This report is a good starting point, but as the Office has identified herein there are details that need clarification and augmentation including:

- Table 1 EVCI should be modified such that the accounting information is presented in a more easily understood format.
- Table 3 EVCI should include the date each custom project was accepted by the Company.
- The Company should provide an explanation on the battery storage project accounting and milestones in reply comments in this docket.

Thus, the Office further recommends that the Commission require the Company to meet with interested parties to discuss potential modifications and/or enhancements to the STEP Annual Status Report.

Finally, the Office supports abandoning the Alternative Nox Reduction Project and recommends that the Commission clearly indicate that the funds associated with this project are no longer authorized to be spent unless and until the Company receives approval for a reallocation or new proposal that is found to be in the public interest.

³ Electric Vehicle Charging Infrastructure includes OMAG expenses and footnotes that these are program expenditures prior to Commission approval in July 2017.