

January 5, 2021

VIA ELECTRONIC FILING

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

Attention: Gary Widerburg
Commission Administrator

RE: **Docket No. 20-035-01**
Application to Increase the Deferred Rate through the Energy Balancing Account
Mechanism
Rocky Mountain Power Rebuttal Testimony

In accordance with the Scheduling Order and Notice of Hearing issued by the Utah Public Service Commission (“Commission”) on March 31, 2020, PacifiCorp, d.b.a. Rocky Mountain Power, hereby submits for electronic filing its rebuttal testimony in the above referenced matter.

Rocky Mountain Power respectfully requests that all formal correspondence and requests for additional information regarding this filing be addressed to the following:

By E-mail (preferred): datarequest@pacificorp.com
utahdockets@pacificorp.com
jana.saba@pacificorp.com
emily.wegener@pacificorp.com

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

Utah Public Service Commission

January 5, 2021

Page 2

Informal inquiries may be directed to Jana Saba at (801) 220-2823.

Sincerely,

A handwritten signature in blue ink that reads "Joelle Steward". The signature is written in a cursive style with a large, looped "J" and "S".

Joelle Steward
Vice President, Regulation

cc: Service List – Docket No. 20-035-01

CERTIFICATE OF SERVICE

Docket No. 20-035-01

I hereby certify that on January 5, 2021, a true and correct copy of the foregoing was served by electronic mail to the following:

Utah Office of Consumer Services

Michele Beck mbeck@utah.gov
ocs@utah.gov

Division of Public Utilities

dpudatarequest@utah.gov

Assistant Attorney General

Patricia Schmid pschmid@agutah.gov
Justin Jetter jjetter@agutah.gov
Robert Moore rmoore@agutah.gov
Victor Copeland vcopeland@agutah.gov

Utah Association of Energy Users

Phillip J. Russell (C) prussell@jdrsllaw.com

Western Resource Advocates

Sophie Hayes (C) sophie.hayes@westernresources.org
Nancy Kelly (C) nkelly@westernresources.org
Steven S. Michel (C) smichel@westernresources.org
Callie Hood (C) callie.hood@westernresources.org

Rocky Mountain Power

Data Request Response Center datarequest@pacificorp.com
Jana Saba jana.saba@pacificorp.com
utahdockets@pacificorp.com
Emily Wegener emily.wegener@pacificorp.com



Mary Penfield
Adviser, Regulatory Operations

REDACTED

Rocky Mountain Power

Docket No. 20-035-01

Witness: Dana M. Ralston

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Rebuttal Testimony of Dana M. Ralston

January 2021

1 **Q. Are you the same Dana M. Ralston who previously filed response testimony in this**
2 **proceeding on behalf of PacifiCorp, d.b.a. Rocky Mountain Power**
3 **(“the Company”)?**

4 A. Yes.

5 **PURPOSE OF TESTIMONY**

6 **Q. What is the purpose of your testimony in this case?**

7 A. My testimony responds to the response testimony of Mr. Philip Hayet who submitted
8 testimony on behalf of the Office of Consumer Services (“OCS” or “Office”) in support
9 of the Division’s recommended adjustments for replacement power costs associated
10 with three outages.

11 **Q. For which three outages does Mr. Hayet expressly support the Division’s**
12 **recommended disallowance?**

13 A. Mr. Hayet supports the Division’s recommended disallowance of replacement power
14 costs from the energy balancing account related to the outages at Lake Side 2 Unit 3 on
15 August 18, 2019, Dave Johnston 1 on February 18, 2019 and Wyodak on June 6, 2019.

16 **Q. Does the Company agree with any of the adjustments supported by the Office?**

17 A. Yes. In response testimony, the Company agreed to the adjustment proposed by the
18 Division related to the outage at Wyodak. The remainder of my testimony will address
19 Mr. Hayet’s testimony related to the Lake Side 2 and Dave Johnston outages.

20 **Lake Side 2 Unit 3**

21 **Q. What did the Commission find with respect to the Lake Side 2 Unit 3 outage in its**
22 **recent order on the general rate case in Docket No. 20-035-04 (“GRC”)?**

23 A. The Commission rejected similar arguments by the Office in support of its

24 recommendation to disallow the repair costs associated with the Lake Side 2 Unit 3
25 outage. On December 30, 2020, the Commission issued an order that found the
26 Company's actions to be prudent. Specifically the order states:

27 We find RMP has provided substantial evidence it has operated and
28 maintained Lake Side 2 Unit 3 prudently. Significantly, RMP followed
29 prudent practices by performing an RCA. There is nothing in the
30 completed RCA that identifies negligent or imprudent actions as a
31 likely cause of this outage. Rather, we see evidence that RMP engaged
32 qualified expert companies to develop, perform, and/or recommend
33 procedures to operate this plant.¹

34 The Office has not offered any new evidence that would justify the Commission
35 deviating from its decision in the GRC in this proceeding.

36 **Q. Mr. Hayet states: "PacifiCorp failed to identify the cause of a similar Lake Side
37 outage in 2009 and now that another, similar outage has occurred, PacifiCorp is
38 clearly deficient due to its failure of having identified the cause of the first outage.
39 Had PacifiCorp performed a second root cause analysis (RCA) for the 2009 event,
40 the resulting information may have prevented the outage in dispute in the instant
41 proceeding from occurring." Is this accurate?**

42 **A.** No. Mr. Hayet assumes that a second RCA would have found an actual root cause as
43 the RCA performed by the original equipment manufacturer ("OEM") in 2009 was
44 inconclusive. This statement also assumes that if a second RCA was performed, the
45 root cause "may have prevented" the 2019 outage, which is incorrect as the events are
46 different including initiating conditions.

¹ *Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations*, Docket No. 20-035-04, Order at 35-36 (Dec. 30, 2020).

² Response Testimony of Philip Hayet for the Office of Consumer Services (December 10, 2020) ("Hayet Testimony") at 5, lines 110-114.

47 **Q. Please describe the 2019 and 2009 Lake Side events and explain how they are**
48 **different.**

49 A. As described in my response testimony, on August 18, 2019, the Lake Side Block 2
50 Steam Turbine Generator (“STG”) experienced an electrical fault that melted a portion
51 of the generator stator core beyond repair.³

52 To contrast with the 2009 Lake Side outage event, in 2009 the Lake Side STG10
53 was operating at approximately 220 megawatts (“MW”) for over an hour and load was
54 being reduced to a target setpoint of 165 MW when the unit tripped offline due to 87U
55 differential relay operation. The differences between the two outages is highlighted in
56 Figures 1 and 2 provided in Confidential Exhibit RMP__(DMR-1R). The failure
57 originated in the series connections, which are exterior to the core of the generator,
58 unlike the 2019 outage that originated approximately 85 millimeters beneath the
59 surface of the core as seen in Figure 2. The series connections were not implicated in
60 the 2019 failure. The 2009 fault started with a coil-to-coil arcing of phase C which then
61 evolved into a three-phase fault, as shown in Figure 1 of Confidential Exhibit
62 RMP__(DMR-1R). This was different from the phase-to-core fault originating in phase
63 B that occurred in 2019.

64 **Q. Was an RCA completed in 2019 and what were the findings?**

65 A. Yes. As described in my Response Testimony, Siemens, the OEM, conducted an RCA,
66 which was inconclusive.⁴

67 **Q. Was an official RCA completed in 2009 and what were the findings?**

68 A. Yes. As with the 2019 outage, the Company hired the OEM, Siemens to conduct an

³ Response Testimony of Dana Ralston (December 10, 2020) (“Ralston Response”) Page 7, lines 140-152.

⁴ Ralston Response at page 8, lines 153-167.

69 RCA, which was also inconclusive. The 2009 RCA evaluated 33 possible causes, of
70 which the most likely causes fell into four categories: 1 – General Overall or System
71 Issues, 2 – Potential Issues with the Magnetic Core, 3 – Potential Issues with the Stator
72 Winding, and 4 – Possible Foreign Object Scenarios.

73 **Q. Do you agree with Mr. Hayet’s testimony in which he asserts that “this type of**
74 **problem occurred before at one of the Lake Side Generating units”⁵ in reference**
75 **to the 2009 event?**

76 A No. As I described above, even though the 2009 and 2019 outages both related to the
77 generators and the respective RCAs were inconclusive, the failure types and locations
78 within the generator are very different.

79 **Q. Is Mr. Hayet’s statement regarding the 2019 event’s “cause was most likely due to**
80 **a foreign object having been left in the winding area of the generator”⁶ of the**
81 **failure correct?**

82 A. No. The 2019 RCA, provided as Confidential Exhibit RMP__ (DMR-2R), specifically
83 states that “No conclusive root cause was identified.” All [REDACTED] potential failure
84 scenarios were either “eliminated” or considered a “low probability.”⁷ There is no
85 supporting evidence that something was left inside the machine, as Mr. Hayet implies.
86 Nothing was found in the machine at the conclusion of the 2018 generator inspection,
87 or after the failure occurred in 2019. The RCA states that Siemens could not identify
88 any specific foreign object.

⁵ Response Testimony of Philip Hayet for the Office of Consumer Services (December 10, 2020) (“Hayet Testimony”) at 4, lines 92-93.

⁶ Hayet Testimony at 2, lines 39-40.

⁷ 2019 RCA at 22-27.

89 **Q. What does Siemens consider a “foreign material / object” as it relates to the**
90 **analysis performed?**

91 A. Siemens’ description of a foreign object is defined as ‘material or an object located in
92 a space it does not belong.’ It does not identify the object as being introduced by
93 workers; rather, it could be a bolt or another item inside the generator that broke off
94 and went through the machine. A foreign object is something that is not where it is
95 supposed to be according to the design.

96 **Q. In events where a foreign object / material failure is identified as the root cause, is**
97 **the originating foreign material typically found?**

98 A. Yes. Of the six major winding and core failures that Siemens identified in its RCA, four
99 of the failures did have conclusive root causes with three of them positively identifying
100 foreign material as shown in Figure 3 of Confidential Exhibit RMP__(DMR-1R).⁸ The
101 likelihood that an outage was due to foreign object damage which did not leave any
102 signs or evidence is unlikely.

103 **Q. Do you believe that the Company was negligent with regards to the 2019 outage**
104 **as Mr. Hayet states?**

105 A. No. The Company has demonstrated it has operated, maintained, and acted prudently
106 with respect to Lake Side 2 by: 1) operating the unit within design; 2) following OEM
107 recommendations; 3) providing oversight and being engaged with Siemens during
108 maintenance activities; 4) using the OEM experts on this equipment to perform
109 maintenance; and 5) following foreign material exclusion policies and procedures for
110 both the Company and the OEM. All these actions demonstrate a concerted effort to

⁸ 2019 RCA at 4.

111 ensure that the Company acted and continues to act prudently and in the best interest
112 of customers.

113 **Q. Has the Company taken additional steps to determine the cause of the Lake Side**
114 **2 outage?**

115 A. Yes. Due to the significance of the event and the fact the Company owns other
116 generators of the same model, the Company hired and is working with a neutral third-
117 party contractor to perform an additional RCA investigation in pursuit of a root cause.
118 This report is expected to be completed by middle of January 2021, though preliminary
119 results indicate no additional conclusions from that of the Siemens RCA.

120 **Q. Should the Company always be required to perform a second RCA if the first is**
121 **inconclusive?**

122 A. No. The Commission has previously stated that it does not “expect a utility to conduct
123 an RCA for every unplanned outage.”⁹ It follows that if the Company does not have to
124 perform an RCA for every unplanned outage, it also does not have to conduct a second
125 RCA unless warranted by the facts and circumstances of a specific outage.

126 **Q. What is your recommendation to the Commission?**

127 A. I recommend that the Commission reject the disallowances for the Lake Side 2 outage
128 addressed above. My testimony demonstrates the Company was prudent in its actions.

129 **Dave Johnston Unit 1**

130 **Q. Please describe the outage at Dave Johnston Unit 1.**

131 A. On February 18, Dave Johnston Unit 1 was removed from service due to boiler draft
132 issues. The draft issue was corrected, but the unit remained offline while personnel

⁹ *Application of Rocky Mountain Power to Increase the Deferred EBA Rate through the Energy Balancing Account Mechanism*, Docket No. 18-035-01, Order at 6 (March 12, 2019) (“2018 EBA Order”).

133 investigated and worked to repair leaking seals on the 1B boiler feed pump (“BFP”).
134 Inspection of the failed 1B BFP revealed that the internal volutes (the casing that
135 receives the fluid being pumped by the impeller) had been installed backwards by a
136 contractor in 2018, while the BFP was offsite at the contractor’s facility.

137 **Q. Mr. Hayet testifies that the Dave Johnston Unit 1 outage should be disallowed**
138 **because the Company should be held responsible for its contractor’s errors.¹⁰ How**
139 **do you respond?**

140 A. The Company effectively manages its contractors as can be seen from the fleet’s
141 overall excellent performance. Requiring additional oversight of qualified contractors
142 in an attempt to ensure zero issues would increase expense without generally providing
143 a commensurate benefit. As the Commission recognized in the 2018 EBA Order, such
144 a standard “might require expenses and personnel across a multitude of contractual
145 relationships, potentially increasing costs in ways that are impossible for us to predict
146 or calculate in this docket.”¹¹

147 **Q. What standard has the Commission used in the past to evaluate whether**
148 **PacifiCorp acted imprudently when mistakes were made by contractors?**

149 A. In the 2018 EBA, the Commission provided “relevant factors” for evaluating whether
150 PacifiCorp acted prudently when a contractor made a mistake in performing work
151 including: 1) the reasonableness and due diligence of PacifiCorp in entering the
152 contractual relationship, including PacifiCorp’s procurement process; 2) the level and
153 effectiveness of PacifiCorp’s ongoing management of the relationship, including
154 administration, monitoring, and any necessary oversight; and 3) the propriety of the

¹⁰ Hayet Testimony at 8, Lines 156-175.

¹¹ 2018 EBA Order at 16.

155 contractor's actions.¹²

156 **Q. How did PacifiCorp act reasonably when it hired a contractor to install the**
157 **internal volutes in the Dave Johnston Unit 1 boiler feed pump?**

158 A. The Company selected the OEM to install the internal volutes because of their technical
159 expertise with the equipment, which was beyond the technical expertise of plant
160 maintenance personnel. The OEM had previously supported the maintenance
161 requirements of the boiler feed pump with no issues. When the Company realized the
162 OEM had not installed the volutes properly, it sought corrective measures from the
163 contractor. It also has changed maintenance contractors as a result of this error.

164 **Q. Why did the Company fail to negotiate with the contractor to reimburse it for**
165 **replacement power costs that resulted from the contractor's mistake?**

166 A. A provision requiring a contractor to reimburse the company for replacement power
167 costs resulting from contractor error would result in a dramatic escalation in the
168 contracted price of all work performed by contractors and could make the use of
169 contractors cost prohibitive, even when it is the most efficient and prudent way to
170 maintain a generating unit.

171 **Q. Was the Company's monitoring and oversight of the OEM's work reasonable?**

172 A. Yes. The company is actively engaged with contractors (in this case the OEM) from
173 initial discussions on equipment challenges, best practice recommendations, what
174 needs to be fixed, (scope) description of work to be completed, schedules for minimal
175 impact to plant operations, procurement, and ultimately the repair of the equipment at
176 the contractor's facilities. In the Dave Johnston Unit 1 outage, the internal volutes were

¹² *Id.* at 3.

177 installed backwards at the OEM's facility, and the boiler feed pump provided back to
178 the company for operation. Because these components are internal (pump must be taken
179 apart to view them) and the fact that the OEM is the expert, the company not only could
180 not see the volutes but also does not have the expertise to recognize they were installed
181 backwards.

182 **Q. What is your recommendation to the Commission?**

183 A. I recommend that the Commission reject the disallowances for the Dave Johnston Unit
184 1 outage addressed above. My testimony demonstrates the Company was prudent in its
185 actions.

186 **Q. Does this conclude your rebuttal testimony?**

187 A. Yes.

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Rocky Mountain Power
Exhibit RMP__ (DMR-1R)
Docket No. 20-035-01
Witness: Dana M. Ralston

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

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Exhibit Accompanying Rebuttal Testimony of Dana M. Ralston

2009 & 2019 Lake Side Outage Comparison

January 2021

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SEPARATE COVER**

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Rocky Mountain Power
Exhibit RMP__ (DMR-2R)
Docket No. 20-035-01
Witness: Dana M. Ralston

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

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Exhibit Accompanying Rebuttal Testimony of Dana M. Ralston

2019 Lake Side Outage Siemens Root Cause Analysis

January 2021

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