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Rocky Mountain Power Docket No. 22-035-01 Witness: Brad Richards

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED Surrebuttal Testimony of Brad Richards

December 2022

1	Q.	Are you the same Brad Richards 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 rebuttal testimony of Mr. Philip DiDomenico and Mr.
8		Dan F. Koehler of Daymark Energy Advisors, Inc. ("Daymark") who submitted rebuttal
9		testimony on behalf of the Division of Public Utilities ("DPU" or "Division").
10	Q.	To which issues raised by Daymark in its rebuttal testimony do you respond?
11	A.	My testimony addresses the rebuttal arguments put forth by Daymark in support of their
12		recommendations contained in DPU Confidential Exhibit 2.0 R to disallow recovery of
13		replacement power costs related to six separate outages that occurred at the Company's
14		thermal generation plants in 2021.
15	Q.	Do any of Daymark's rebuttal arguments change the Company's position that
16		these adjustments are not warranted?
17	A.	No. As described in further detail in my testimony, the Company has acted prudently
18		and diligently with respect to its plant operations.

Page 2 – Surrebuttal Testimony of Brad Richards

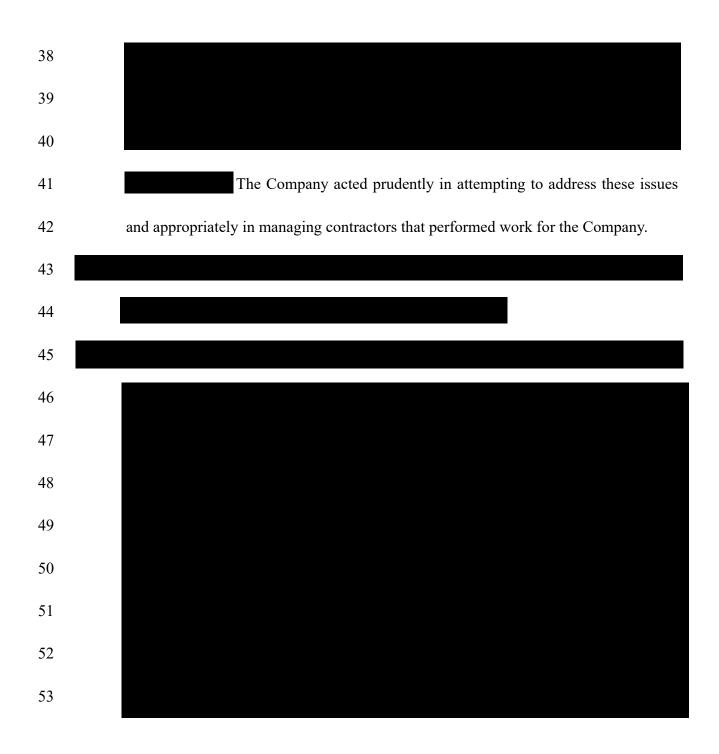
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19		BLUNDELL UNIT 1 (September 15, 2021)
20	Q.	Daymark contends that Rocky Mountain Power should have pursued legal action
21		against the contractor (Reliable Turbine). ¹ What is your response to Daymark's
22		rebuttal testimony?
23	A.	Daymark implies that the valve failure could clearly be attributed to the work
24		performed earlier in the year by Reliable Turbine, and
25		However, determining the cause
26		of the cracks in the valve is not as clear cut as Daymark claims. An inspection
27		performed on the failed valve by a different contractor, Bay Valve Service, revealed
28		internal cracks in the body of the valve. These cracks were one of the reasons that the
29		valve could not be rebuilt or repaired and required a full replacement. There is no way
30		to definitively prove that these cracks had been caused by the valve rebuild. It is
31		certainly possible that the internal cracks had formed after the spring overhaul as a
32		natural result of use and age or had even begun forming internally prior the spring
33		overhaul but were not yet visible.
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35		
36		The Company
37		had made this decision months prior to the valve failure.

¹ Exhibit DPU 2.0R, Confidential Rebuttal Testimony of Philip DiDomenico and Dan F. Koehler at 5:53-59 (Nov. 18, 2022).

Page 3 – Surrebuttal Testimony of Brad Richards

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Q. Why is it difficult for the Company to include provisions in its contracts that allow the Company to seek reimbursement from contractors for replacement power costs in the event of contractor error leading to a failure?

- A. In most situations, including a provision in the Company's contracts that requires
 contractors to cover replacement power costs, would add a significant amount of risk
 from the contractor's perspective. For this reason, contracts in the industry almost
 always contain language that restricts these kinds of damages from being recovered.
 As such, if the Company insisted on including a provision allowing recovery of
- replacement power costs, vendors would respond to this increased risk exposure in one
 of two ways. They would either reflect the higher risk through significantly higher
 prices for the parts and services rendered under the contract, or they would simply
 refuse to enter into a contract with the Company.
- of teruse to enter into a contract with the company.
- 66

Craig Unit 1 (July 25, 2021)

67 Q. Please describe and respond to Daymark's rebuttal testimony addressing the
68 Craig Unit 1 outage.

A. In its rebuttal testimony, Daymark acknowledged that the Root Cause Analysis
("RCA") listed increased load cycling as a potential cause of the failed expansion
bellows, but dismisses this conclusion as "highly speculative." While the RCA was
completed by the Company's partner, the plant operator, the Company believes that it
is a reasonable assumption that increased cycling would accelerate wear of the bellows

Page 5 – Surrebuttal Testimony of Brad Richards

74		in question, just as more frequent starting and stopping would affect many other
75		mechanical and electrical components in thermal generating units.
76		The Company reiterates that the failed bellows had the correct dimensions,
77		thickness, and number of convolutions, and had been custom manufactured by a vendor
78		based on the physical dimensions of the component it was replacing at that time. A
79		later investigation informed by the assessment of a component that had already been in
80		service for 7 years determined that this specific bellows should have included a clamp
81		that limits horizontal expansion.
82	Q.	What is your response to Daymark's argument regarding this outage?
83	A.	The Company maintains that it was prudent in properly vetting the project scope of the
84		overhaul plan in 2014. When a component failed after 7 years, the plant conducted an
85		appropriate root cause analysis and gathered evidence that facilitated the replacement
86		of a component with an improved design to better accommodate the new demands of

87 the plant. Therefore, the Commission should reject Daymark's proposed adjustment.

88		Dave Johnston Unit 1 (November 27, 2021)
89	Q.	How did Daymark respond to your response testimony that explained that the
90		ignition of coal dust in this area that caused the fire at the Dave Johnston Unit 1
91		was not foreseeable or expected and that the Company prudently conducts routine
92		wash downs and housekeeping to mitigate the accumulation of coal dust
93		throughout the plant.
94	A.	Daymark continues to argue that the outage could have been avoided if the Company
95		had proactively installed cable tray covers.
96	Q.	Why is the addition of cable tray covers not a simple solution that could have
97		mitigated the risk of coal dust buildup as suggested by Daymark?
98	A.	There are thousands of square feet of cable trays within each coal plant. Covers were
99		not installed over the cable trays throughout the entire unit, and the Company did not
100		have had a way to predict exactly where the cable tray covers were needed before the
101		event occurred. As such, to implement the DPU solution, the Company would have
102		had to install cable tray covers throughout the unit, which is not a justifiable or
103		reasonable position. Moreover, even if the Company could have predicted the location
104		of enhanced fire risk, cable tray covers may or may not have been effective at
105		preventing the fire due to the inaccessibility of the area and the fact that cable tray
106		covers do not completely solve the issue of coal dust build-up in the cable trays. Coal
107		dust can still build up even where cable trays are installed. Adding covers to the cable

Page 7 – Surrebuttal Testimony of Brad Richards

108		trays in the plant would not have been as simple as Daymark contends. Daymark is
109		using hindsight to imply causation from mitigation measure that was installed after the
110		event (when the Company had located an area of increased fire risk), and that is an
111		unreasonable standard.
112	Q.	What is your response to Daymark's conclusion?
113	А.	The Company refutes Daymark's assertion that broad installation of cable tray covers
114		should have been installed and that such covers would be a simple solution to coal dust
115		buildup. The Company maintains that this event was a rare unforeseen occurrence and
116		that was addressed promptly and efficiently and was therefore prudent.
117		Dave Johnston Unit 2 (April 12, 2021)
118	Q.	What does Daymark conclude regarding the Dave Johnston Unit 2 April 12, 2021,
119		outage which resulted from intermittent oil leakage from a turbine bearing?
120	А.	In its rebuttal testimony Daymark acknowledges the various measures taken by the
121		Company to address the Unit 2 turbine bearing oil leakage prior to this outage.
122		However, Daymark suggests that these efforts should not be considered proactive
123		because they were ultimately "insufficient to prevent the outage and fire." ²
124	Q.	What is your response to this conclusion?
125	A.	Daymark is incorrect in their assumption that prior efforts by the Company to address
126		the turbine bearing were done without the aid of subject matter expertise. The measures

Page 8 - Surrebuttal Testimony of Brad Richards

² Exhibit DPU 2.0 R at 8:117-118.

127		employed in these efforts were conceived and executed in consultation with subject
128		matter experts. Prior to the outage, the Company had taken multiple steps that were
129		part of an iterative process to address this issue to identify a solution. The Company's
130		actions were not reactive as Daymark claims. Rather, the Company attempted to
131		proactively address the issue, eliminating options that were unsuccessful in solving the
132		problem. This is another instance of Daymark using hindsight to criticize the
133		Company's reasonable efforts to address a problem. However, the Company's actions
134		were appropriate, prudent, and proactive and Daymark's proposed adjustment should
135		be dismissed.
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136		Dave Johnston Unit 3 (May 17, 2021)
136 137	Q.	Dave Johnston Unit 3 (May 17, 2021) What is your response to Daymark's rebuttal testimony regarding the Dave
	Q.	
137	Q. A.	What is your response to Daymark's rebuttal testimony regarding the Dave
137 138		What is your response to Daymark's rebuttal testimony regarding the Dave Johnston Unit 3 outage?
137 138 139		What is your response to Daymark's rebuttal testimony regarding the Dave Johnston Unit 3 outage? Daymark mischaracterizes the Company's approach as "run to failure." ³ The Company
137 138 139 140		 What is your response to Daymark's rebuttal testimony regarding the Dave Johnston Unit 3 outage? Daymark mischaracterizes the Company's approach as "run to failure."³ The Company does not have a broad "run to failure" policy or approach for all plant equipment.
 137 138 139 140 141 		What is your response to Daymark's rebuttal testimony regarding the Dave Johnston Unit 3 outage? Daymark mischaracterizes the Company's approach as "run to failure." ³ The Company does not have a broad "run to failure" policy or approach for all plant equipment. Decisions about when to replace, repair, or do nothing with specific equipment are
 137 138 139 140 141 142 		What is your response to Daymark's rebuttal testimony regarding the Dave Johnston Unit 3 outage? Daymark mischaracterizes the Company's approach as "run to failure." ³ The Company does not have a broad "run to failure" policy or approach for all plant equipment. Decisions about when to replace, repair, or do nothing with specific equipment are made on an individual basis. In the case of this feedwater heater, the Company decided

³ Exhibit DPU 2.0 R at 9:128-130.

Page 9 – Surrebuttal Testimony of Brad Richards

146		automatically replace equipment simply because of its age. The Company's decision to
147		use the remaining life of the feedwater heater was not imprudent simply because it later
148		failed.
149		Lake Side 1 (November 15, 2021)
150	Q.	How did Daymark respond to your response testimony regarding the Lake Side 1
151		outage on November 15, 2021?
152	A.	Daymark continues to argue that in cases of human error, the Company should
153		automatically be held responsible because appropriate checks and balances and
154		oversight can be put in place to prevent human error. Daymark states they believe the
155		Company does not see a problem that needs to be addressed.
156	Q.	How do you respond to Daymark's allegations?
157	А.	Daymark's allegation is not substantiated by the record. The Company investigated this
158		incident as a significant event, and the results were documented and shared with the
159		rest of the fleet using the Significant Event Reporting process ("SER"). The Company
160		recognizes that there was a human error made by an experienced technician, the source
161		of this failure was addressed with the technician and the management team, and the
162		incident was communicated to other relevant personnel. The Commission has
163		acknowledged that human errors occur and has balanced that against the actions taken
164		to resolve the issue and prevent occurrences from occurring in the future. ⁴

⁴ Application of Rocky Mountain Power to Increase the Deferred EBA Rate through the Energy Balancing Account Mechanism, Docket No. 18-025-01, Order at 16 (Mar. 12, 2019).

165		The Company has a robust Human Performance program which is regularly reviewed.
166		The circumstances of this particular outage were reviewed with the technician team at
167		the Lake Side plant to create awareness and prevent future occurrences. Adding ever
168		increasing layers of oversight and supervision is not a realistic solution to prevent all
169		human error. This does not mean the Company is not vigilantly addressing and
170		minimizing human error through efforts such as its Human Performance program.
171		OUTAGE DOCUMENTATION
172	Q.	In their initial report, Daymark expressed interest in how lessons learned are
173		disseminated across the fleet. Can you please explain?
174	A.	For certain events, the Company uses a process. This process is used to catalog event
175		details, background information, root cause analyses, mitigation or resolving measures
176		taken, and potential impacts outside of the immediately affected units. These reports
177		are then disseminated across the fleet for review by each plant wherein plant
178		management and staff will determine whether the impacts are likely applicable to any
179		of the units within those other plants, and what actions, if any, should be taken. It is
180		important to recognize that the generating units in the PacifiCorp fleet are not
181		homogonous, and that the significant differences in equipment, age, geographic
182		location, and operating profile means that impacts and subsequent lessons experienced
183		at one unit, often do not apply to another unit, even despite certain similarities.
184	Q.	Daymark also suggests that planned outage extensions should be documented in
185		effectively the same way as the SERs. How do you respond?

186 A. A planned outage extension occurs when the actual duration of a Planned Outage
187 exceeds the originally anticipated duration. Unlike a forced outage, which occurs with

Page 11 – Surrebuttal Testimony of Brad Richards

188 little warning, it is not uncommon for a plant to determine that the planned outage will 189 require additional time in the early stages of the outage. Required extensions are 190 communicated to and coordinated with the energy supply team in advance, facilitating 191 them to make the proper arrangements. Additionally, planned outages are scheduled 192 during periods of the year best suited to system and market needs.

The SER process has been designed, in part, for events which lack predictability in their causes and timing and are generally attributed to an equipment failure or restriction. For any planned extension, the Company can provide information about the specific factors which necessitated the extension, however, due to the significant differences between SER qualified events and planned events, the Company does not use the SER format for planned outages or planned extensions.

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CONCLUSION AND RECOMMENDATION

200 Q. What is your recommendation to the Commission?

- A. I recommend that the Commission reject the recommended disallowances for the six
 thermal outages addressed above. My testimony demonstrates the Company was
 prudent in its actions.
- 204 Q. Does this conclude your testimony?
- 205 A. Yes.

Page 12 – Surrebuttal Testimony of Brad Richards