

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of)	Docket No. 14-035-31
Rocky Mountain Power to Increase)	
The Deferred EBA Rate Through the)	Rebuttal Testimony of
Energy Balancing Account Mechanism)	Philip Hayet
)	On Behalf of the
)	Utah Office of
)	Consumer Services

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September 23, 2014

1 **Q. ARE YOU THE SAME PHILIP HAYET WHO SUBMITTED DIRECT**
2 **TESTIMONY ON BEHALF OF THE OFFICE OF CONSUMER SERVICES**
3 **(“OFFICE”) IN THIS PROCEEDING?**

4 A. Yes.

5 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

6 A. The primary purpose of my rebuttal testimony is to reply to the response testimony of
7 Rocky Mountain Power (“RMP” or “Company”) witness, Mr. Dana Ralston, which was
8 filed on August 28, 2014. Mr. Ralston addressed two outage adjustments involving the
9 Chehalis Gas Plant and Craig Unit 1 that the Division of Public Utilities (“Division”)
10 witness Mr. Richard Hahn discussed in his direct testimony and Audit Report that were
11 filed July 29, 2014. I also addressed the same two outages and identified similar
12 adjustments in my direct testimony filed on August 28, 2014.

13 In my rebuttal testimony, I also explain the differences between the Office’s and
14 Division’s recommended adjustments for these two outages. These differences relate to the
15 calculation of excess replacement power costs associated with these outages.

16 **Chehalis Outage**

17 **Q. PLEASE EXPLAIN THE COMPANY’S POSITION CONCERNING THE**
18 **CHEHALIS OUTAGE.**

19 A. In his responsive testimony, Mr. Ralston reviewed the history of the three separate failures
20 of identical transformers that occurred at the three different units at the same Chehalis
21 plant. All three failures related to a bushing on the different transformers that involved
22 short circuits, and damage to the 500 kV transformers. The first one occurred at Chehalis
23 Unit 3 in 2006, the second one at Chehalis Unit 1 in 2011, and the third one (the one that
24 affects this EBA case) occurred at Chehalis Unit 2 in 2013. In particular, Mr. Ralston

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25 attempted to dispel the notion that PacifiCorp did not fully investigate the prior transformer
26 failures. He explained the evaluations that were performed to investigate the failures and
27 he discussed the steps the Company took to avoid the 2013 outage at issue in this
28 proceeding.

29 **Q. WHAT INFORMATION DID MR. RALSTON RELY ON TO EXPLAIN WHAT**
30 **EVALUATIONS WERE PERFORMED?**

31 A. The Root Cause Analysis reports that were created around the time the outages occurred.
32 Through discovery I obtained all of the Root Cause Analyses that Mr. Ralston discussed in
33 his testimony and I reviewed all of the documents.¹ After considering Mr. Ralston's
34 testimony and documents provided in response to discovery requests, I am still concerned
35 about the fact that these major 500 kV transformer failures occurred three separate times.

36 **Q. IS IT UNUSUAL FOR A SIMILAR FAILURE TO OCCUR THREE TIMES AT**
37 **THE SAME PLANT?**

38 A. It seems surprising to me that three major transformer failures related to bushing equipment
39 on each transformer would have occurred at the same plant. I recognize that in 2006 when
40 it happened the first time the plant was owned by another Company, but PacifiCorp did
41 conduct a due diligence review before acquiring the Chehalis plant.

¹ DRs OCS 3-1, 3-2, and 3-3.

42 **Q. MR. RALSTON STATES THAT THE 2006 ROOT CAUSE ANALYSIS DID NOT**
43 **LIST A SPECIFIC CAUSE FOR THE UNIT 3 FAILURE. BASED ON YOUR**
44 **REVIEW OF THE 2006 ROOT CAUSE ANALYSIS, WAS A SPECIFIC REASON**
45 **FOR THE FAILURE IDENTIFIED?**

46 A. It does not appear that a specific cause for the failure was identified in the 2006 Root Cause
47 Analysis; however, the report generally indicated that the cause of the failure related to
48 [REDACTED]² Furthermore, the 2011 Root Cause Analysis
49 Reports that were prepared at the time of the second failure reflected back on the 2006
50 failure and stated, “[REDACTED]
51 [REDACTED]”³ It appears that the
52 [REDACTED] discussed in 2006 related to a problem that occurred at
53 the time of installation. This suggests that the same type of problem could have affected
54 all three units and that PacifiCorp should have considered taking additional action to fix
55 the apparent problem with the bushing equipment. Yet, Mr. Ralston states that PacifiCorp
56 had no reason “to believe further action was required as a result of the 2006 analysis.”⁴

57 **Q. MR. RALSTON STATES THAT FOLLOWING THE 2011 FAILURE AT**
58 **CHEHALIS UNIT 1 A COMPREHENSIVE INVESTIGATION WAS**
59 **PERFORMED. WERE ANY DEFINITIVE FINDINGS REPORTED?**

60 A. The Company provided reports that were prepared by the transformer manufacturer (FUJI),
61 the bushing manufacturer (NGK), and by ABB, which is a large electrical equipment
62 manufacturer. Mr. Ralston claimed that a definitive root cause was never determined in

² OCS 3-1, Attach OCS 3.1 CONF, Report Bushing 012-Chehalis Power, WA.doc, time stamp on letter March 27, 2006.

³ OCS 3-2, Attach OCS 3.2 CONF, Report on the investigation results of the 500kV bushing.pdf, October 11, 2011.

⁴ Dana Ralston Rebuttal Testimony, line 48.

63 any of these reports, although both NGK and ABB suspected once again that the problem
64 had to do with a bushing. ABB indicated that its investigation was limited by the fact that

65 “ [REDACTED]

66 [REDACTED]

67 [REDACTED]

68 [REDACTED]”⁵

69 **Q. IN MR. RALSTON’S RECENT REVIEW OF THE 2011 OUTAGE, DID HE**
70 **MENTION THAT REPLACING A BUSHING WAS A POSSIBLE ACTION THAT**
71 **PACIFICORP COULD HAVE TAKEN TO AVOID THE 2013 OUTATGE?**

72 A. No he did not. Despite the two prior bushing failures, it appears that PacifiCorp did not
73 consider replacing the bushings on the third transformer after the 2011 outage occurred.
74 According to Mr. Ralston, “PacifiCorp had two options: install additional monitoring
75 equipment to see if a failure mode and imminent failure could be identified, or replace both
76 remaining transformers at a cost of over eight million dollars...”⁶

77 **Q. WHAT OPTION DID PACIFICORP SELECT?**

78 A. PacifiCorp decided to install additional monitoring equipment on the transformers.

79 **Q. WHAT IS YOUR VIEW OF THE COMPANY’S ACTIONS?**

80 A. Given that the 2011 reports prepared by NGK (the bushing manufacturer) and ABB both
81 pointed to a potential problem with the bushing equipment, PacifiCorp should have
82 conducted a cost-benefit evaluation of replacing the bushings on the third transformer,
83 which ultimately failed in 2013.

⁵ OCS 3.3, Attach OCS 3.3 CONF, 4064068 PacifiCorp Chehalis Risk Assessment and Inspection Report Rev 0.pdf, April 27, 2011.

⁶ Ralston Rebuttal Testimony, line 71.

84 **Q. DID THE COMPANY EVENTUALLY REPLACE ANY BUSHINGS?**

85 A. Yes it did. Mr. Ralston explained in his rebuttal testimony that PacifiCorp did install higher
86 rated bushings on Unit 2 (the only remaining FUJI transformer), but only after the failure
87 of the bushings occurred in 2013.⁷

88

89 **Q. WHAT IS YOUR RECOMMENDATION CONCERNING THE CHEHALIS**
90 **OUTAGE?**

91 A. Given that PacifiCorp experienced three outages of the same equipment at the Chehalis
92 Plant, the Company should have taken additional steps to avoid the 2013 outage.
93 Therefore, I continue to recommend a Chehalis adjustment of \$631, 067, as presented in
94 my direct testimony.

95

96 **Craig Unit 1 Outage**

97 **Q. PLEASE EXPLAIN THE COMPANY'S POSITION CONCERNING THE CRAIG**
98 **UNIT 1 OUTAGE.**

99 A. PacifiCorp acknowledges that an operator error did occur at the Craig Plant and the
100 extended outage could have been avoided. However, PacifiCorp contends that the outage
101 should not result in a disallowance because it is not the plant operator.

102 **Q. DO YOU AGREE WITH THE COMPANY'S POSITION?**

103 A. No I do not. First, this was a significant outage and the plant operator was well aware that
104 it could continue to operate the plant while it waited for parts to come in, as long as care
105 was taken to follow the specific administrative controls until the parts arrived. The problem

⁷ Ralston Rebuttal Testimony, line 83.

106 that required the replacement parts occurred in June 2013, and the major outage that
107 resulted from not following the administrative controls occurred just a few months later in
108 September 2013. It was not a situation where ten years passed and something was
109 forgotten; the failure to follow administrative controls happened just three months after
110 they were put into place. Second, PacifiCorp ratepayers only have the Company's
111 management to rely on to ensure that the resources that they pay for in rates are properly
112 operated and maintained. Customers do not interface with the plant operators, only
113 PacifiCorp does. Whether the unit is Craig, Hayden, Colstrip, or any other unit that
114 PacifiCorp partially owns, but does not operate, customers must be able to depend on
115 PacifiCorp's management to undertake appropriate steps to ensure that the units are
116 operated in a cost-effective, safe and reliable manner.

117 **Q. WHAT IS YOUR RECOMMENDATION CONCERNING THE CRAIG OUTAGE?**

118 A. I do not find the Company's arguments persuasive and continue to support a Craig
119 adjustment of \$929,825, as presented in my direct testimony.

120 **Replacement Power Calculation**

121 **Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN THE OFFICE'S AND THE**
122 **DIVISION'S CALCULATIONS OF EXCESS REPLACEMENT POWER COSTS**
123 **FOR THE CHEHALIS AND CRAIG UNIT 1 OUTAGES.**

124 A. In reviewing Mr. Hahn's workpapers, it appears that his excess replacement power
125 calculations assume that, but for the outages, Chehalis and Craig Unit 1 would have
126 operated every hour at maximum capacity. I believe this operational assumption overstates
127 the amount of energy those units would have produced. In the calculation of my proposed
128 outage adjustments, I limited the amount of generation the units could have produced had

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129 the outages not occurred, based on the unit capacity factors in the Company's 2012 general
130 rate case GRID projection. Using these capacity factors, the Craig adjustment is \$929,825,
131 and the Chehalis adjustment is \$631,067, which represent the appropriate adjustments that
132 should be made.

133 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

134 **A.** Yes it does.

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