

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

)	DOCKET NO. 12-035-92
)	
In the Matter of the Voluntary Request)	Exhibit No. DPU 1.0 SR
of Rocky Mountain Power for Approval)	
of Resource Decision to Construct)	
Selective Catalytic Reduction Systems on)	Surrebuttal Testimony and
Jim Bridger Units 3 and 4)	Exhibits
)	Matthew Croft
)	

**FOR THE DIVISION OF PUBLIC UTILITIES
DEPARTMENT OF COMMERCE
STATE OF UTAH**

PUBLIC REDACTED

Surrebuttal Testimony of

Matthew Croft

February 28, 2013

1 **Q. Please state your name and occupation?**

2 **A.** My name is Matthew Allen Croft. I am employed by the Utah Division of Public Utilities
3 (Division) as a Utility Technical Consultant.

4 **Q. Have you testified previously in this docket?**

5 **A.** Yes. I provided direct testimony in this docket.

6 **Q. What is the purpose of the testimony you are now filing?**

7 **A.** The purpose of my testimony is to present the Division's overall recommendation with
8 regards to Rocky Mountain Power's (Company) request for approval to construct selective
9 catalytic reduction (SCR) systems on Jim Bridger Units 3 and 4. I will also address the
10 Company's rebuttal testimony of the issues I raised in my direct testimony.

11 **Q. Are other Division witnesses providing surrebuttal testimony?**

12 **A.** Yes. Mr. George Evans will be providing surrebuttal testimony. Mr. Evans will be addressing
13 the Company's rebuttal of certain issues raised in his direct testimony.

14 **Q. What is the Division's overall recommendation with regards to the Company's
15 proposed SCR investment?**

16 **A.** The Division recommends that the Commission conditionally approve the Company's
17 request to construct SCR systems on Jim Bridger Units 3 and 4. The Division's concerns
18 raised in direct testimony have been satisfied by the Company. The resolution of these
19 concerns is addressed in both this testimony and the surrebuttal testimony of Mr. George
20 Evans. As part of its recommended approval, the Division proposes the following conditions:

21 1) The Commission's approval should be conditioned upon a review of the impacts of the
22 EPA's emission limit re-proposal anticipated to be released on March 29, 2013 (Re-

23 proposal). The Company should be required to provide a cost impact analysis of meeting
24 whatever requirements are included in that Re-proposal approximately one week
25 following the Re-proposal. Intervening parties should then be afforded the opportunity to
26 comment on the cost impacts approximately one week after the Company submits its cost
27 impact analysis. Assuming that the PVRR(d) remains favorable to the SCR investment,
28 this first condition would be satisfied.

29 2) The Commission's approval should be conditioned upon a review of the Company's fully
30 executed engineering, procurement, and construction (EPC) contract. Assuming the final
31 costs negotiated (including escalation, if any) in the EPC contract are aligned with the
32 costs currently filed in the Company Application in this case, this second condition would
33 be satisfied. If the EPA Re-proposal results in a revised PVRR(d), and that revision
34 remains favorable to the SCR, such revised costs should be aligned with the final EPC
35 contract.

36 3) The Commission's approval should be conditioned upon rate payer protections being
37 included in the signed EPC contract or in the alternative, through other Company
38 commitments. Specifically, rate payers should be held exempt from any non-compliance
39 costs imposed by Wyoming or the EPA due to the Company or contractor's failure to
40 meet the December 31, 2015 and December 31, 2016 emission limit deadlines or other
41 deadlines as may be included in the EPA's forthcoming March 29, 2013 Re-proposal.

42 4) Any deviation between the SCR costs included in this case and the costs included in a
43 future general rate case or major plant addition case should be explained by the

44 Company. Such explanations should be provided with the Company's general rate case or
45 major plant addition case application.

46 5) The Commission's approval should be an approval of the decision to construct the SCR
47 systems, not a pre-approval of whatever costs may be incurred under the SCR systems
48 project. Actual SCR system costs or forecasted SCR system costs proposed to be
49 included in a future general rate case or major plant addition case test year should be
50 open for prudence review. For example, should imprudent Company actions during
51 construction result in an increase in costs for a given component of the project, such costs
52 should not be recovered from ratepayers regardless of whether the total project costs are
53 less than or more than the costs included in this (Docket 12-035-92) case.

54 **Q. Should the EPA Re-proposal include a more stringent emission rate than the one**
55 **imposed by the state of Wyoming, what could the revised emission rate be?**

56 A. While the ultimate emission limit decision is unknown at this time, the Division conducted
57 an analysis to evaluate how the SCR investment benefit could change given a 0.05 lb/MMbtu
58 NOx emission limit (.05 limit).

59 **Q. Why did you choose a .05 limit?**

60 A. At the February 6, 2013 pre-hearing in this docket, Company witness Mr. Teply testified that
61 a .05 limit "is an emission rate we have seen across the country."¹

62 **Q. Have you verified this statement from Mr. Teply?**

63 A. Yes. DPU data request 14.1(a) requested whether the Company was aware of any coal plants
64 where a .05 limit was imposed. The Company's response states:

¹ See Pre-Hearing transcript, page 25 lines 7-9.

65 PacifiCorp does not maintain a list of coal fueled power plants and their
66 enforceable NOx permit emission limits. Nonetheless, the Company provides the
67 following examples of NOx emissions permit limits that have been identified for
68 other entities as follows:
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70 1. The EPA proposed a BART NOx emission limit of 0.05 lb/mmBtu for several
71 coal fueled units in Arizona, including Apache Units 2 and 3, Cholla Units 2, 3
72 and 4 and Coronado Units 1 and 2. In the final Arizona Regional Haze FIP, the
73 EPA revised these BART limits upward to the permitted emission limits as
74 follows: Apache Unit 1 at 0.056 lb/mmBtu; Apache Units 2 and 3 at 0.07
75 lb/mmBtu (2-unit average basis); Cholla Units 2, 3 and 4 at 0.055 lb/mmBtu (3-
76 unit average basis); and Coronado Units 1 and 2 at 0.065 lb/mmBtu (2-unit
77 average basis).
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79 2. In the final Regional Haze FIP published for the state of New Mexico, the EPA
80 included an emission limit of 0.05 lb/mmBtu for the San Juan Generating Station.
81 However, the EPA recently published an announcement that it was working with
82 the state of New Mexico to revise the state's SIP. An extract from the
83 announcement follows:
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85 *“The U.S. Environmental Protection Agency joins the state of New Mexico and*
86 *Public Service of New Mexico (PNM) in announcing a key step in a 6-month*
87 *effort to develop a technical alternative to a federally implemented clean-air plan*
88 *for the state of New Mexico. The announcement comes after many months of*
89 *constructive discussions among the EPA, the New Mexico Environment*
90 *Department (NMED) and Public Service Company of New Mexico (PNM) to*
91 *address pollution control at the San Juan Generation Station power plant near*
92 *Farmington, New Mexico.”*
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94 *“The agreement outlines the elements of a state plan that would replace the*
95 *existing federal plan for reducing regional haze and increasing visibility at*
96 *several national parks and monuments. The shared goal throughout these*
97 *discussions has been to replace the federal plan with an alternative strategy*
98 *which achieves federal Clean Air Act (CAA) requirements. The alternative was*
99 *made possible following the EPA’s decision to grant an administrative stay of a*
100 *federal clean-air plan taking effect last July [2012] in response to the state’s*
101 *request to consider an alternative approach to achieving environmental goals.”*
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103 *“The completion of these negotiations allows New Mexico to begin its public*
104 *process for establishing a state plan to meet federal CAA requirements and*
105 *replace the federal plan. In the upcoming months, the state will complete the*
106 *necessary actions to submit a state implementation plan (SIP) for the San Juan*
107 *Generating Station power plant for EPA’s consideration. Upon approval, the*
108 *state plan would replace the federal implementation plan.”*

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110 While at least some of the EPA's initial .05 limit proposals have been revised upward, the .05
111 limit seemed a reasonable estimate of a "next step" should the EPA propose a more stringent
112 limit for the Jim Bridger units.

113 **Q. Is the Company aware of any coal plants where a NOx emission limit more stringent**
114 **than 0.05 lb/MMbtu has been imposed?**

115 A. The Company's response to DPU data request 14.1 (b) states, [REDACTED]

116 [REDACTED]

117 [REDACTED]

118 **Q. Has the Company provided any indication as to how the SCR costs might change given**
119 **a .05 limit?**

120 A. Yes. While the costs associated with a .05 limit may change, it appears that any cost increase
121 would still "work within the bounds²" that the Company has included in its application.

122 **Q. Please explain.**

123 A. Based on the Company's supplemental responses to DPU data request 14.1e and 14.1d, and
124 Mr. Teply's comments from the pre-hearing,³ it appears the SCR capital and possibly O&M
125 costs included in the Company's initial filing were conservative (made more expensive)
126 estimates in order to capture variability and unknowns during the Company's planning
127 process. The Company's position is that any increase in capital costs could be accommodated
128 within the range of direct costs included in their filing. The Company's supplemental
129 response to DPU data request 14.1d lists several SCR design items that would be required to
130 support a .05 limit. Immediately following the list of these items, the response states:

² See Pre-hearing transcript page 26 lines 6-15.

³ See Pre-hearing transcript page 26 lines 6-15.

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[REDACTED]

[REDACTED]

With regards to O&M costs, the Company states in its supplemental response to DPU data

147 request 14.1e that:

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[REDACTED]

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[REDACTED]

169 Based on these responses, it appears that “additional” or “incremental” capital costs can be
170 absorbed by the conservative direct costs already included in the case. It is not entirely clear

171 from the Company's response if the O&M costs included in the filing would also absorb the
172 [REDACTED]. However, even if the [REDACTED]
173 [REDACTED] mentioned in the response is applied to the incremental O&M costs in Tab 6 of the
174 master assumption file, the PVRR of these costs only [REDACTED]. The overall
175 conclusion from this analysis is that if EPA requires a .05 limit, the estimated PVRR benefit
176 of the SCR investment would not change, or if it did change, the change would be "nominal."

177 **Q. Has the Company resolved the issues you raised in direct testimony concerning the**
178 **reclamation costs associated with the Bridger mine?**

179 A. Yes. The Company's rebuttal testimony included a revised mine plan that included greater
180 reclamation costs in the base case scenario (4 Unit scenario). A complete sinking fund
181 analysis was also provided for the 4 Unit scenario.

182 **Q. In your direct testimony you explained that post 2030 reclamation costs appear to be**
183 **significant and should therefore be included in the 4 Unit scenario. Why does Table 1R**
184 **of Mr. Link's rebuttal testimony only show a [REDACTED] impact of including the post**
185 **2030 reclamation fund contributions in the analysis?**

186 A. In the Company's initial filing, the 4 unit scenario included a relatively small contribution
187 rate through 2030. In the 2 Unit scenario, there was a significant amount of contributions
188 assumed in the pre-2031 period. This made sense since much of the reclamation work in this
189 scenario would be done prior to 2030. It was therefore assumed that a drastic increase in
190 reclamation fund contributions would have to occur after 2030 in the 4 unit scenario.
191 However, the Company's rebuttal filing, under the 4 unit scenario, did not assume the same
192 pre-2031 contributions as the original filing. The Company's rebuttal filing increased the pre-

193 2031 contributions from [REDACTED], a [REDACTED]. In short, the
194 previously assumed post-2030 contributions have now been spread evenly each year between
195 2013 and 2037.

196 **Q. Have you generally reviewed the Company's revised sinking fund calculations as well**
197 **as other Bridger Coal Company operating expense calculations?**

198 A. Yes. I attempted to verify that the updated cash coal costs included in Mr. Link's Exhibit
199 RTL-1R tie to the supporting work papers and the calculations within those workpapers.
200 With one possible⁴, small exception, the workpapers appear to support the updated figures in
201 RTL-1R. Correcting the one possible exception reduces the PVRR benefit of the SCR
202 investment by only \$4.3 million⁵.

203 **Q. Has the Company provided any additional evidence regarding its new mine plan?**

204 A. Yes. The Division requested a meeting with the Company to explain its new plan.

205 [REDACTED]
206 [REDACTED]
207 [REDACTED]
208 [REDACTED]
209 [REDACTED]

210 **Q. Can you please summarize the Division's position with regards to the Company's**
211 **proposed SCR investment?**

212 A. Yes. The Division recommends conditional approval of the Company's proposal to construct
213 SCR systems on Jim Bridger units 3 and 4. As explained in this testimony and the surrebuttal

⁴ The Division has not confirmed this error with the Company.

⁵ See Confidential DPU Exhibit 1.1 SR.

214 testimony of Mr. George Evans, the Company has resolved the concerns previously raised by
215 the Division in direct testimony. The Division believes the conditions stated here-in will
216 provide rate payer protections and provide the Commission, Company and other parties the
217 opportunity to take into consideration the Company's fully executed EPC contract and the
218 EPA's emission limit re-proposal that is expected to be released on March 29, 2013. Should
219 the EPA propose a more stringent NOx emission limit, it appears, based on the information
220 known at this point, that such a limit could approach a.05 lb/MMBtu NOx limit. As
221 demonstrated previously, such a limit may reduce the PVRR benefit of the SCR investment
222 to some extent, but not nearly to the point that the analysis would favor gas conversion.

223 **Q. Does this conclude your testimony?**

224 A. Yes.