

Rocky Mountain Power  
Docket No. 17-035-40  
Witness: Cindy A. Crane

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

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Second Supplemental Direct Testimony of Cindy A. Crane

February 2018

1 **Q. Are you the same Cindy A. Crane who previously filed testimony in this case on**  
2 **behalf of Rocky Mountain Power (“the Company”), a division of PacifiCorp?**

3 A. Yes.

4 **PURPOSE AND SUMMARY OF TESTIMONY**

5 **Q. What is the purpose of your second supplemental direct testimony?**

6 A. I support the request that the Public Service Commission of Utah (“Commission”)  
7 approve the Company’s significant and voluntary energy resource decisions for new  
8 wind resources (“Wind Projects”) and for the Aeolus-to-Bridger/Anticline line and  
9 network upgrades (“Transmission Projects”) (collectively, the “Combined Projects”). I  
10 update the Company’s policy testimony based on the updated results of the Company’s  
11 2017R request for proposals (“2017R RFP”).

12 **Q. Please summarize your testimony.**

13 A. The Company updated the 2017R RFP final shortlist to reflect the results of the  
14 interconnection restudy process and new system impact studies (“SISs”). The updated  
15 final shortlist replaces one Company benchmark resource, McFadden Ridge II, with  
16 another benchmark resource, Ekola Flats. The Company's economic analysis for the  
17 updated final shortlist shows an increase in customer benefits, demonstrating that the  
18 2017R RFP was robust and produced favorable resource opportunities for customers.

19 **SECOND SUPPLEMENTAL DIRECT TESTIMONY**

20 **Q. Why is the Company making this second supplemental filing?**

21 A. In its first supplemental filing, the Company explained that it had selected four Wind  
22 Projects, totaling 1,170 megawatts (“MW”), for the 2017R RFP final shortlist: TB Flats  
23 I and II; McFadden Ridge II; Cedar Springs; and Uinta. At that time, however, the

24 Company had not concluded its interconnection restudy process for the Aeolus-to-  
25 Bridger/Anticline line or updated its SISs for resources interconnecting to that line,  
26 including resources on the 2017R RFP final shortlist. This second supplemental filing  
27 updates the 2017R RFP final shortlist to reflect the results of the interconnection  
28 restudy process and updated SISs. The updated 2017R RFP shortlist consists of 1,311  
29 MW, replacing the McFadden II benchmark resource, totaling 109 MW, with another  
30 Company benchmark resource, Ekola Flats, totaling 250 MW.

31 **Q. Why did the Company select the final shortlist in the 2017R RFP before it had SIS**  
32 **results?**

33 A. In the original draft of the 2017R RFP filed in Docket No. 17-035-23, the Company  
34 proposed that all bidders have a completed SIS to qualify. The Utah independent  
35 evaluator and certain intervenors, including Utah Association of Energy Users,  
36 proposed that the Company require only that bidders show they have requested a SIS.  
37 The Company removed the requirement of a completed SIS in the final 2017R RFP  
38 approved by the Commission. When the Company announced the final shortlist in  
39 January 2018, it still had not completed the interconnection restudy process and  
40 updated the SISs. While the interconnection restudy process ultimately affected the  
41 final shortlist, the potential implications of the restudy process, if any, on bid selections  
42 were not known until the interconnection restudy process was finalized.

43 **Q. What were the results of this process?**

44 A. As explained by Company witness Mr. Rick A. Vail and Mr. Rick T. Link, there were  
45 two important findings. First, the interconnection restudy process identified that  
46 projects with interconnection queue positions higher than a certain point were not

47 viable without Energy Gateway South, a PacifiCorp transmission project that is not  
48 scheduled to be built before the expiration of production tax credits (“PTCs”) in 2020.  
49 McFadden Ridge II has a queue position higher than the cutoff point, so the Company  
50 removed it from the final shortlist.

51 Second, the restudy identified 1,510 MW of total interconnection capacity for  
52 projects in eastern Wyoming, up from 1,270 MW. The Company updated its System  
53 Optimizer (“SO”) model simulations taking into account these findings. The SO model  
54 continued to select TB Flats I and II, Cedar Springs, and Uinta, but replaced McFadden  
55 Ridge II with Ekola Flats for the 2017R RFP final shortlist now that more  
56 interconnection capacity was identified.

57 **Q. Did the Company update its SO and Planning and Risk (“PaR”) studies to reassess**  
58 **the economic benefits of the Combined Projects?**

59 A. Yes. As explained by Company witness Mr. Link, the Company updated the SO and  
60 PaR studies for all nine price-policy scenarios. Mr. Link's updated economic analysis  
61 demonstrates increased customer benefits of \$196 million in the medium case through  
62 2050 (as compared to \$137 million in the original filing and \$177 million in the first  
63 supplemental filing), and an increased benefit range of \$333 million to \$405 million in  
64 the medium case through 2036. Moreover, the updated economic analysis demonstrates  
65 the Combined Projects continue to provide net customer benefits under all scenarios  
66 studied through 2036, and in seven of the nine scenarios through 2050.

67 **Q. Did the Company prepare new sensitivity analyses to test the likelihood of**  
68 **achieving these economic benefits?**

69 A. Yes, as in the first supplemental filing, the Company updated several different scenarios

70 to determine their impact on the Combined Projects' economic benefits, including a  
71 scenario reflecting the Company's proposal for wind repowering, and one comparing  
72 the benefits with and without projects from the pending solar RFP, using the latest  
73 pricing information from that RFP. In each case, the scenarios confirm the significant  
74 customer benefits associated with the Combined Projects.

75 **Q. Based on the results of the 2017R RFP, what modifications is the Company making**  
76 **to its request for resource approval related to the Wind Projects?**

77 A. In its first supplemental direct testimony, the Company sought approval to construct or  
78 procure four new Wyoming wind projects with a total capacity of 1,170 MW, including  
79 three of the benchmark facilities (TB Flats I and II, now combined as a single project,  
80 and McFadden Ridge II), and two new facilities (Cedar Springs and Uinta).

81 In this second supplemental filing, the Company still seeks approval of three of  
82 the benchmark facilities, but has replaced McFadden Ridge II with Ekola Flats. The  
83 Company seeks resource approval for Wind Projects totaling 1,311 MW, consisting of  
84 1,111 MW of Company-owned facilities, and a 200 MW Power Purchase Agreement.  
85 Of the 1,311 MW total, there are 1,150 MW of Wind Projects in eastern Wyoming  
86 enabled by the Aeolus-to-Bridger/Anticline transmission line.

87 **Q. Has any aspect of the Aeolus-to-Bridger/Anticline transmission line changed as a**  
88 **result of the updated final shortlist?**

89 A. No. The proposed route and facilities required for the construction of the Aeolus-to-  
90 Bridger/Anticline transmission line have not changed.

91 **Q. Are there any modifications to the network upgrades included in this second**  
92 **supplemental filing?**

93 A. Yes. The network upgrades required to interconnect McFadden Ridge II are no longer  
94 needed. Based on the results of the updated SISs, however, some additional network  
95 upgrades to other Wind Projects are required. Mr. Vail provides a detailed description  
96 of these network upgrades.

97 **Q. The Company's original and supplemental filings contained a capital cost estimate**  
98 **of approximately \$2 billion for the Combined Projects. With additional wind**  
99 **resources and network upgrades, have the total costs of the Combined Projects**  
100 **changed?**

101 A. Yes. Adding the Ekola Flats wind resource increases total projected capital costs for the  
102 Combined Projects from approximately \$2 billion to \$2.245 billion. Mr. Link explains,  
103 however, the Company's capital costs have declined by 18 percent from the initial filing  
104 on cost-per kilowatt basis. The per-unit capital cost for the benchmark wind projects  
105 was \$1,590/kW in the initial filing, and \$1,320/kW in the first supplemental filing. The  
106 total capital for the Wind Projects in the final shortlist is now \$1,310/kW.

107 **Q. Based on the Company's updated economic analysis, has the Company updated**  
108 **its forecast of the near-term rate impact to Utah customers?**

109 A. Yes. As explained in the testimony of Ms. Steward, the first-year revenue requirement  
110 of the Combined Projects is less than 1.7 percent in 2021, the first full year of operation.  
111 This is 0.2 percent lower than the increase projected in the initial filing and 0.1 percent  
112 higher than the increase projected in the first supplemental filing.

113 **Q. Considering the updated results of the 2017R RFP and the Company's updated**  
114 **analysis of benefits, costs, and risks, do the Combined Projects satisfy the public**  
115 **interest standard?**

116 A. Yes. The Combined Projects are the least-cost, least-risk path available to serve the  
117 Company's customers by meeting both near-term and long-term needs for additional  
118 resources. The Combined Projects provide significant benefits to customers under  
119 virtually all scenarios and sensitivities studied.

120 **Q. Does this conclude your second supplemental direct testimony?**

121 A. Yes.