

1	Q.	Are you the same Curtis B. Mansfield that filed direct, rebuttal, and surrebuttal
2		testimony in the revenue requirement phase of this proceeding and rebuttal
3		testimony in the cost of service phase of this proceeding on behalf of PacifiCorp
4		d/b/a Rocky Mountain Power ("Rocky Mountain Power" or the "Company")?
5	A.	Yes.
6		I. PURPOSE OF SURREBUTTAL TESTIMONY
7	Q.	What is the purpose of your surrebuttal testimony?
8	A.	The purpose of my testimony is to respond to issues raised by Utah Clean Energy
9		("UCE") witness Ms. Sarah Wright and Western Resource Advocates ("WRA")
10		witness Mr. Douglas J. Howe with respect to the Utah Advanced Meter Infrastructure
11		("AMI") Project in their rebuttal testimonies in the cost of service and pricing phase of
12		this proceeding.
13		II. AMI PROJECT
14	Q.	Please summarize the issues raised by UCE and WRA with respect to the AMI
15		project in their cost of service rebuttal testimonies.
16	A.	UCE witness Ms. Wright and WRA witness Mr. Howe both agree with the following
17		recommendations of Office of Consumer Services ("OCS") witness Mr. Ron Nelson:
18		1. AMI project cannot and should not be justified solely on meter reading
19		savings. 1,2

Rebuttal Testimony of Sarah Wright at lines 105-113.
 Rebuttal Testimony of Douglas J. Howe at lines 46-48.

20	2.	The Company should be required to create a clear plan or "advance design
21		roadmap" prior to receiving cost recovery for the implementation of the AMI
22		project. ^{3,4}
23	3.	The Company should be required to implement additional process prior to the
24		implementation of the AMI project, such as a stakeholder workshop ⁵ , to
25		discuss various aspects of the AMI project. ⁶
26	Additio	onally, Ms. Wright also claims:
27	1.	The Company should update its customer service system in order to offer
28		advanced rate designs enabled by AMI. ⁷
29	2.	The Commission should consider imposing a demand response target
30		concurrently with its approval of the AMI project.8
31	3.	The Company's plan should evaluate strategies for Conservation Voltage
32		Reduction and Volt/VAR optimization using AMI.9
33	4.	The Commission should adopt the five requirements recommended by
34		Mr. Nelson: ¹⁰
35		a. Provide consumers easy access to the best available information about
36		their energy usage.
37		b. Provide customers and authorized third parties with access to historic
38		billing information in a machine-readable, automated manner.

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³ Rebuttal Testimony of Sarah Wright at lines 105-113.

⁴ Rebuttal Testimony of Douglas J. Howe at lines 8-16 and lines 65-66.

⁵ Rebuttal Testimony of Sarah Wright at lines 310-313.

⁶ Rebuttal Testimony of Douglas J. Howe at lines 63-65.

⁷ Rebuttal Testimony of Sarah Wright at lines 120-129.

⁸ *Id.* at lines 156-159.

⁹ *Id.* at lines 161-163. ¹⁰ *Id.* at lines 136-151.

39		c. Provide consumers and third parties with rate information in
40		standardized, machine-readable formats.
41		d. The customer authorization process should be easy for consumers to
42		use and require the least number of steps.
43		e. Provide a set of open data access standards that would create the ability
44		for third parties to access sets of customer energy use data, either
45		aggregated or anonymized.
46		Additionally, Mr. Howe also argues that:
47		1. The Company did not show that the AMI project is cost effective based on a
48		net present value ("NPV") calculation and the Company's cost of capital, but
49		does appear to have a positive Internal Rate of Return ("IRR") over the 20 year
50		life of the project. ¹¹
51		2. AMI cannot match the cost savings available by simply reducing manual meter
52		reading frequency. ¹²
53	Q.	Please respond to assertions of UCE and WRA that the AMI project cannot be
54		justified on meter reading savings alone. Is the Company justifying the AMI
55		project solely on meter reading savings?
56	A.	No. Meter reading savings is only one of the many project benefits. As I stated in my
57		direct testimony, this project also includes environmental, safety and engineering
58		benefits. It will lay the foundation for future smart grid investments including
59		distribution automation systems, advanced outage management and/or customer facing
60		energy efficiency applications and rate design. Contrary to the claims by UCE and

¹¹ Rebuttal Testimony of Douglas J. Howe at lines 29-40. ¹² *Id.* at lines 50-52.

WRA, the AMI project is expected to deliver these benefits to customers and others upon installation, as stated in my direct testimony, which justify the project. AMI is not a new technology. Over two-thirds of all electric meters in the United States are AMI meters.

Q. What additional argument does Mr. Howe offer regarding why the project should not be justified on meter reading savings?

A. Mr. Howe suggests that if the Company wants to reduce its expenses associated with meter reading, it should instead reduce the frequency of meter reads. He supports this by citing a lesson gleaned from the 1990s in the United Kingdom, which according to Mr. Howe resulted in the UK utilities implementing meter reading every two years. Mr. Howe uses this example to suggest that cost savings from meter reading associated with AMI is a minor benefit of the AMI project.

Q. Do you agree?

A. No. It's interesting to note that Mr. Howe highlights business practices from thirty years ago in the UK. Business practices and technologies have evolved in both the U.S. and UK since that time. Meter reading savings are certainly one benefit associated with AMI. Reading meters on an infrequent basis introduces a number of issues including, but not limited to, estimated bills, meter access issues, regulatory compliance, and degradation of the overall customer experience. Providing customers access to more information, rather than less, regarding their energy usage and cost has been the goal of the Company in order to support the ability of customers to make economic decisions. As I stated earlier, there are a number of other substantial tangible benefits,

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¹³ Direct testimony of Curtis B. Mansfield at lines 555-575.

83 some of which will be immediately available to customers during the test year and as 84 the project is rolled out over the next couple of years. 85 Please address their recommendations for some form of stakeholder process to 0. 86 develop the various aspects of AMI. 87 A. The Company proposed a collaborative review in the rebuttal testimony of Mr. Robert 88 M. Meredith, and expanded the collaborative review to include rate designs that 89 leverage AMI in Mr. Meredith's surrebuttal testimony. However, the Company has already demonstrated sufficient customer benefits of the AMI project to justify cost 90 91 recovery, even without a collaborative review or advanced rate design before allowing 92 a portion of the project costs into rates. What is your response to Ms. Wright's suggestion that the Company's customer 93 Q. 94 service system must be updated in order for customers to receive benefits of 95 advanced rate design? 96 A. Updates to the Company's customer service system are not necessary for all advanced 97 rate designs. Specifically, the AMI project will enable cost effective deployment of 98 time-varying rates without requiring billing system changes. AMI allows for economic 99 customer integrations and accurate accounting of revenue. For example, when a 100 customer opts into a time-of-use option or when time-of-use periods on a tariff are 101 changed, AMI saves the cost of a truck roll through remote meter re-programming. 102 This feature makes it easier and less expensive to change the time-of-use periods. Other 103 advanced rate designs, like critical-peak-pricing, would require both AMI and changes

to the Company's billing system.

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Additionally, Mr. Meredith, in his rebuttal testimony, ¹⁴ stated the Company will 105 106 explore future pricing designs through a collaborative review with stakeholders. The 107 data made available through AMI will help the Company and other stakeholders, more 108 accurately estimate billing determinants when designing new time varying rate options 109 for Schedule 6A customers. What is your response to Ms. Wright's proposal to require a demand response 110 Q. 111 target? 112 As I stated in my rebuttal testimony in this phase and in response to Mr. Nelson's Α. 113 proposal for a demand response target, the Company has already demonstrated a 114 commitment to evaluating and developing demand response programs, so a new target 115 or requirement is unnecessary. My rebuttal testimony provided examples of demand 116 response programs that the Company has successfully implemented. 117 Ms. Wright also recommends that the Company's plan should evaluate strategies Q. 118 for Conservation Voltage Reduction and Volt/VAR optimization using AMI. Do 119 you agree? 120 In concept, yes. The Company is looking at numerous solutions to leverage its A. 121 investment in the AMI infrastructure, including conservation voltage and Volt/VAR 122 optimization. Future projects will be reviewed diligently to maximize the benefits of 123 its investment. How do you respond to Ms. Wright's support for Mr. Nelson's five 124 Q. 125 recommendations listed earlier in your testimony?

My rebuttal testimony described the data access framework that customers will have

¹⁴ Rebuttal Testimony of Robert M. Meredith at lines 1292-1296.

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127	once the AMI project is complete, including green button technology and other
128	features. Customers will retain the ability to provide their data to third parties as they
129	see fit. Providing direct third-party access to customer data is unacceptable for privacy
130	reasons. It also increases the potential for cyber security threats.

Q. Do you agree with Mr. Howe that the Company has not demonstrated that the AMI project is cost effective?

- A. No. The Company has provided numerous financial documents that demonstrate the project is cost effective. The complete AMI project delivers a positive NPV of \$8.9 million. Mr. Howe also acknowledged the positive IRR in his testimony.
- 136 Q. Please summarize your testimony with respect to the AMI project.
- 137 The AMI project is cost effective and will provide significant benefits to customers A. during the test year and into the future as described in my direct testimony. The 138 139 Company's case contains only the portion of the project that is scheduled to be placed 140 into service prior to the end of the test period. While it is true that the entire AMI project 141 will not be completed until 2022, the project does not need to be complete in its entirety 142 before the assets placed into service are used and useful and provide some of the benefits that I outlined in my direct testimony. Once the AMI project is complete and 143 144 fully operational, delivering the stated benefits, the Company will begin implementing 145 smart grid technologies that are currently being assessed for future enhancements. I respectfully request the Commission approve the Company's request to include these 146 147 assets in the rate base included in this case.

Q. Does this conclude your surrebuttal testimony?

149 A. Yes.

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