

Sophie Hayes (12546)
Utah Clean Energy
1014 2nd Ave.
Salt Lake City, UT 84103
Telephone: (801) 363-4046
Email: sophie@utahcleanenergy.org

Attorney for Utah Clean Energy

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky
Mountain Power for Approval of Solicitation
Process for Wind Resources

DOCKET NO. 17-035-23

**REBUTTAL TESTIMONY OF
SARAH WRIGHT
ON BEHALF OF INTERVENOR
UTAH CLEAN ENERGY**

SUBMITTED: September 13, 2017

1 **Q. Please state your name and business address.**

2 A. My name is Sarah Wright. I am the Executive Director of Utah Clean Energy, located at
3 1014 2nd Avenue, Salt Lake City, Utah, 84103.

4 **Q. On whose behalf are you testifying in this proceeding?**

5 A. I am testifying on behalf of Utah Clean Energy (“UCE”), a non-profit and non-partisan
6 public interest organization whose mission is to lead and accelerate the clean energy
7 transformation with vision and expertise. We work to stop energy waste, advance clean energy,
8 and build a smart energy future.

9 **Q. Please describe your background, experience, and education.**

10 A. I am the founder and director of Utah Clean Energy. Through my work with Utah Clean
11 Energy over the last 15 years, I have been involved in a number of regulatory dockets, including
12 Integrated Resource Planning, rate cases, tariff filings, and other dockets relating to energy
13 efficiency, renewable energy, and net metering.

14 I have 15 years of energy policy experience working on state, local, and national energy
15 policy, providing expertise and policy support for renewable energy and energy efficiency. I have
16 served on numerous energy policy working groups and taskforces, including the Energy Efficiency
17 and Energy Development Committees supporting Governor Herbert’s Energy Task Force and Ten
18 Year Energy Plan; the Governor’s Utah Renewable Energy Zone Task Force; Governor
19 Huntsman’s Energy Advisory Council and Blue Ribbon Climate Change Advisory Council;
20 Utah’s Legislative Energy Policy Workgroup, and Salt Lake City’s Climate Action Task Force.

21 For 15 years prior to founding Utah Clean Energy, I was an occupational health and
22 environmental consultant, working on occupational health and ambient air quality issues for a wide
23 variety of commercial, industrial, and governmental clients across the west. I have a BS in Geology

24 from Bradley University in Peoria, Illinois, and a Master of Science in Public Health from the
25 University of Utah in Salt Lake City.

26 **Q. What is Utah Clean Energy's interest in this proceeding?**

27 A. Utah Clean Energy appreciates Rocky Mountain Power's ("RMP") efforts to capitalize on
28 the Federal Production Tax Credit to expand wind energy generation; but we believe that the 2017
29 Integrated Resource Plan ("IRP"), which is the basis for the 2017 Wyoming Wind Request for
30 Proposals ("RFP"), handicapped solar resources by utilizing solar resource costs in the System
31 Optimizer Model that are well above the cost of recent projects. We support all forms of renewable
32 energy and believe that this time limited opportunity to obtain economic, low-risk renewable
33 resources for the benefit of ratepayers should not only be limited to Wyoming wind, but also to
34 solar.

35 **Q. What is the purpose of Utah Clean Energy's Rebuttal Testimony?**

36 A. As discussed above, Utah Clean Energy is supportive of PacifiCorp's goal of capturing the
37 benefits of the Federal Production Tax Credit (PTC) for wind, but we believe that capturing the
38 benefits of 30% Federal Investment Tax Credit (ITC) for solar for the long-term benefit of
39 ratepayers is also critical. I have reviewed the Supplemental Testimony filed by Rick Link on
40 behalf of RMP on August 31, 2017. Mr. Link's testimony regarding the demonstration that the
41 Wyoming wind resource would offer the lowest reasonable cost resource relied heavily upon the
42 results of the 2017 Integrated Resource Plan (IRP) and the 2017 IRP Update. Solar cost
43 assumptions included in the IRP were well above the costs of recent solar Qualifying Facilities.
44 Therefore, one cannot conclude that projected costs and benefits tied to solar development
45 demonstrate that a solar resource is not a least cost resource. We are supportive of the acquisition
46 of all renewables. This rebuttal testimony has been submitted to encourage RMP to expand the

47 scope of the RFP to include all renewable resources in a broader geographic area, including Utah.
48 Utah Clean Energy also requests that the Commission require RMP to revise the 2017 RFP to
49 include assumptions that accurately reflect solar pricing.

50 **Q. Do you agree with Mr. Link’s statement that “both renewable and non-renewable**
51 **resource costs and benefits have been fully vetted in the 2017 IRP modeling, which**
52 **demonstrates that a broadened geographic scope or technology scope would not be**
53 **reasonably expected to deliver least-cost, least-risk electricity to Utah customers.”¹**

54 A. No. “Vetting” of IRP costs and benefits largely depends on the degree to which
55 assumptions used in the IRP model have been considered by stakeholders and regulators through
56 IRP process and Commission review process. The 2017 IRP Action Plan calling for accelerated
57 buildout of Gateway Segment D2 and 1,270 MW of new Wyoming wind was included until the
58 very end of the IRP process. Further, Utah Clean Energy and other stakeholders have not had an
59 opportunity to provide input regarding the 2017 Action Plan. Although RMP may have internally
60 vetted the cost and benefit assumptions in the IRP, absent final stakeholder input through the IRP
61 process and Commission review contemplated under R746-430-1, it is not accurate to say the 2017
62 IRP is “fully vetted.”

63 **Q. Is the Commission required to complete its 2017 IRP review under R746-430-1, before**
64 **it approves the RFP?**

65 A. Neither the Energy Resource Procurement Act², nor the Commission’s Rules require that
66 the Commission approve IRP or Action Plan as a precondition to RFP approval. However, without
67 the benefit of the Commission’s IRP and Action Plan review under R746-430-1, stakeholder and
68 regulatory review of IRP assumptions used to design the RFP and benchmark should not be

¹ Rocky Mountain Power, Supplemental Testimony of Rick Link, lines 316-319 (August 31, 2017)

² Utah Code Ann. §54-17-101 et al.

69 deferred to a separate proceeding. Rather, the Commission must closely review those assumptions
70 and determine if 2017 IRP costs and benefit determinations used to design the 2017 RFP
71 adequately analyzed all renewable resources that provide benefits for a limited time, based upon
72 the expiration of federal tax credits that make these resources extremely cost effective.

73 **Q. Is it your position that the Commission should not approve an RFP for renewables at**
74 **this time?**

75 A. No, only that the Commission should review the cost assumptions and consider the benefits
76 of expanding the scope of the RFP to include additional renewable resource types and an expanded
77 geographic area.

78 **Q. Does the 2017 IRP identify all costs and benefits from solar resources and renewable**
79 **resources sited outside Wyoming?**

80 A. No. The 2017 IRP calls for 1,040 MW of new solar generation to be online in Utah between
81 2028 and 2036. But, the assumptions used to measure costs and benefits of solar generation in the
82 2017 IRP do not reflect the cost of current projects. The 2017 IRP assumes solar pricing of
83 \$57/MWh in 2021, rising with inflation to \$65/MWh in 2027.³ This pricing is grossly inflated.
84 Solar pricing should be modeled at a cost closer to \$30/MWh, or in the range of the most recent
85 QF solar projects. Further, although RMP revised its assumptions regarding Wyoming Wind in
86 the 2017 IRP Update, RMP does not address if it also reexamined solar costs and the time-limited
87 opportunities of the ITC credit. Without accurate solar pricing, it is impossible to conclude that
88 solar deployment in Utah with the 30% ITC is not economic.

³ Rocky Mountain Power, Direct Testimony of Dan MacNeil, 306-307, Docket No. 17-035-37.

89 **Q. Given that Utah Clean Energy participated in the IRP process, didn't you have the**
90 **opportunity to request more accurate solar resource pricing for the system optimizer model**
91 **runs?**

92 A. Yes, Utah Clean Energy participated throughout the IRP process and challenged the solar
93 costs used in the System Optimizer model and noted that they were too high. We requested more
94 accurate pricing during public input meetings, we filed two public input forms requesting RMP
95 include lower solar pricing to better reflect the current market; one of our public input forms
96 specifically requested that RMP model solar prices in line with current PPA pricing.^{4,5} Full
97 comments on the IRP are due to the PSC on October 24, 2017, and Utah Clean Energy will be
98 filing our complete comments at that time. I limit my concerns in this proceeding to the solar
99 resource cost assumptions that are used in the System Optimizer (SO) model that Mr. Link
100 describes in his testimony. As with any model, the results are only as good as the input
101 assumptions.

102 **Q. Did RMP update the solar prices in the IRP modeling to be in line with the PPA**
103 **pricing of current QF projects thus providing the System Optimizer model the opportunity**
104 **to select low-cost solar resources?**

105 A. No, and in a call with some of the IRP team regarding the solar pricing they explained that
106 the IRP prices reflect the costs that RMP could build projects and that they were not willing to
107 model current solar QF costs.

⁴PacifiCorp 2017 IRP Received Comments, Utah Clean Energy Comments submitted on September 15, 2016.
[http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_Feedback_Form_UCE%20Comments_on_Portfolio_Development_and_Supply_Side_Resources\(2\)_9.15.16.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_Feedback_Form_UCE%20Comments_on_Portfolio_Development_and_Supply_Side_Resources(2)_9.15.16.pdf)

⁵PacifiCorp 2017 IRP, Received Comments, Utah Clean Energy Comments submitted on November 4, 2016.
http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Integrated_Resource_Plan/2017_IRP/2017_IRP_Feedback_Form_UCE_Comments_on_SSR_and_Capacity_Contribution_Study.pdf

108 **Q. Is there a problem with only modeling costs that represent RMP-built solar projects**
109 **in the IRP and not using the recent costs from QFs and other recent solar projects in the**
110 **west?**

111 A. Utah Clean Energy is supportive of RMP building and owning renewable energy projects.
112 The issue is that the high cost assumptions used in the IRP likely handicapped solar from being
113 selected by the system optimizer model.

114 **Q. Does 2017 IRP modeling “demonstrate that a broadened geographic scope or**
115 **technology scope would not be reasonably expected to deliver least-cost, least-risk electricity**
116 **to Utah customers?”⁶?**

117 A. No. The 2017 IRP only demonstrates that there are certain costs and benefits from PTC-
118 eligible Wyoming wind development and Gateway transmission buildout by 2020. The 2017 IRP
119 does not demonstrate that RMP considered benefits of solar and renewable resource development
120 outside Wyoming. The 2017 IRP update identified Wyoming wind benefits only after revising
121 Wyoming wind costs and performance assumptions under in the 2017 IRP:

Considering the potential to expand new wind resource capacity addition of the transmission line, PacifiCorp reviewed the Wyoming wind cost and performance assumptions adopted for the 2017 IRP with a more detailed review of potential wind projects located in Wyoming, taking into consideration equipment costs, interconnection costs, and potential development fees. This analysis supports reducing nominal wind capital cost assumptions included in the original sensitivity case of \$1,834/kW by 10.7% to \$1,637 kW.⁷

125 RMP suggests that the 2017 IRP Update only revised assumptions related to Wyoming wind. It is
126 not clear that RMP also reexamined cost and performance assumptions used to evaluate solar

⁶ Rocky Mountain Power, Supplemental Testimony of Rick Link, 316-319.

⁷ PacifiCorp 2017 IRP, Chapter 8, page 220.

127 renewable generation sited outside Wyoming. Utah Clean Energy would be interested in more
128 information from RMP regarding how specific cost and fee assumptions changed with respect to
129 wind generation, and how RMP analyzed and considered the latest solar cost and fee assumptions
130 in the IRP.

131 **Q. Is the 2017 RFP designed to lead to the acquisition, production, and delivery of**
132 **electricity at the lowest reasonable cost?**

133 A. Based on the information presented by RMP, the RFP is designed to lead to lowest
134 reasonable costs of Wyoming wind development on Gateway Segment D2. Utah Clean Energy is
135 concerned that limiting the scope of the RFP to Wyoming wind disregards the benefits of
136 renewable resources sited in other states. There are time-limited benefits tied to the 30% ITC for
137 solar generation that RMP does not appear to have considered. Given the 2017 IRP's inflated solar
138 cost assumptions, a competitive RFP may show that solar development in Utah is competitive with
139 Wyoming wind development. Further, an RFP that includes renewable resources sited outside
140 Wyoming may demonstrate that those resources, in combination with Wyoming wind, are the
141 lowest reasonable cost resources.

142 **Q. Does expanding the scope of the 2017 RFP comply with Commission rules?**

143 A. Yes. Commission rules require that the RFP be designed to solicit a “robust set of bids”⁸
144 that lead to the “acquisition, production and delivery of electricity at the lowest reasonable cost.”⁹
145 Currently, the RFP is designed to solicit bids from wind generation resources built on Gateway
146 Segment D2. By limiting the RFP to a single technology deployed in a single location, RMP is
147 excluding thousands of MW of renewable generation sited throughout its system that may bring
148 comparable benefits to ratepayers at or below RMP's projected costs in the 2017 IRP. Expanding

⁸ R746-420-(1)(b)(iv).

⁹ R746-420-(1)(b)(ii)(A).

149 the scope of the RFP to include renewable resources sited outside Wyoming will render a more
150 robust solicitation that will also consider costs and benefits tied to electric delivery throughout
151 RMP's system.

152 **Q. Do you believe near term investments in renewable resources are in the best interest**
153 **of ratepayers and if so, why?**

154 A. Yes, the pending expiration of the Federal PTC for wind and the 30% ITC for solar offer a
155 limited time opportunity to acquire very economic renewable resources for the long term benefit
156 of ratepayers. Renewable resources offer a hedge against both fuel costs and future carbon costs.
157 Greenhouse gases *will* be regulated in the future. Taking advantage of the falling costs of
158 renewable resources coupled with the PTC and ITC is a prudent path to take for the long-term
159 benefit of ratepayers.

160 **Q. How can RMP address Utah Clean Energy's concerns regarding the 2017 RFP?**

161 A. RMP should revise its 2017 RFP to include wind and solar resources sited in a broader
162 geographic area, including Utah.

163 **Q. Does this conclude your rebuttal testimony?**

164 A. Yes, it does. I reserve the right to offer additional testimony in this or any other related
165 docket.

DATED this 13th day of September, 2017.

/s/Sophie Hayes
Utah Clean Energy

CERTIFICATE OF SERVICE

I hereby certify that on September 13, 2017, a true and correct copy of the foregoing was served upon the following as indicated below:

By Hand Delivery:

Office of Consumer Services
160 East 300 South, 2nd Floor
Salt Lake City, Utah 84111

Via Electronic Mail:

PacifiCorp

Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232
datarequest@pacificorp.com

Utah Office of Consumer Services

Cheryl Murray
Michele Beck
Utah Office of Consumer Services
160 East 300 South, 2nd Floor
Salt Lake City, UT 84111
cmurray@utah.gov
mbeck@utah.gov

Division of Public Utilities

Erika Tedder
Division of Public Utilities
160 East 300 South, 4th Floor
Salt Lake City, UT 84111
etedder@utah.gov

Utah Association of Energy Users

Gary A. Dodge
Phillip J. Russell
HATCH, JAMES & DODGE, P.C.
10 West Broadway, Suite 400
Salt Lake City, UT 84101
gdodge@hjdllaw.com
prussell@hjdllaw.com

Assistant Attorney General

Patricia Schmid
Robert Moore
Justin Jetter
Steven Snarr
Assistant Attorney General
500 Heber M. Wells Building
160 East 300 South
Salt Lake City, Utah 84111
pschmid@agutah.gov
rmoore@agutah.gov
jjetter@agutah.gov
stevensnarr@agutah.gov

Interwest Energy Alliance

Mitch M. Longson
MANNING CURTIS BRADSHAW & BEDNAR PLLC
136 East South Temple, Suite 1300
Salt Lake City, UT 84111
mlongson@mc2b.com

Sarah Cottrell Propst
Interwest Energy Alliance
341 East Alameda
Santa Fe, NM 87504-8526
propst@interwest.org

Rocky Mountain Power

R. Jeff Richards
Yvonne R. Hogle
Rocky Mountain Power
1407 West North Temple, Suite 320
Salt Lake City, UT 84116
robert.richards@pacificorp.com
yvonne.hogle@pacificorp.com

/s/

Sophia Hayes