Rocky Mountain Power
Docket No. 17-035-39
Witness: Gary W. Hoogeveen

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Supplemental Rebuttal Testimony of Gary W. Hoogeveen

April 2018

Q. Please state your name, business address, and present position.

A. My name is Gary Hoogeveen. My business address is 1407 West North Temple, Suite 310, Salt Lake City, Utah 84116. I am Senior Vice President and Chief Commercial Officer of Rocky Mountain Power ("Company"), a division of PacifiCorp.

Q. Briefly describe your professional experience.

A. I have a B.S. degree in Physics from the University of Northern Iowa and Masters and Ph.D. degrees in Space Physics from Rice University. For the last 16 years I have worked for the Berkshire Hathaway Energy family of companies. In the five years immediately preceding my current position at Rocky Mountain Power, I served as President of the Kern River Transmission Company headquartered in Salt Lake City. I joined Rocky Mountain Power in November 2014.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have filed testimony in proceedings before the Public Service Commission of Utah ("Commission").

Q. Are you adopting the direct, rebuttal, and supplemental direct testimonies of Cindy A. Crane in this case?

A. Yes.

PURPOSE AND SUMMARY OF SUPPLEMENTAL REBUTTAL TESTIMONY

Q. What is the purpose of your supplemental rebuttal testimony?

A. I support the Company's request for approval of the wind repowering project by providing a policy response to the testimony of the Utah Division of Public Utilities ("DPU"), the Office of Consumer Services ("OCS"), and Utah Association of Energy Users ("UAE"), filed on April 2, 2018.

Q. Please summarize your testimony.

A. The wind repowering project is a key element of PacifiCorp's least-cost, least-risk plan to serve customers. Under virtually all scenarios, the Company's resource decision to repower its wind fleet will provide net benefits to Utah customers—a fact demonstrated by the Company's economic analysis and the analysis of DPU, OCS and UAE. The high likelihood of net benefits has not changed throughout this case. What has changed is the risk profile of the wind repowering project, which has steadily decreased over time. During the course of this case, the Company has addressed or mitigated the major risks identified by the parties, including cost overruns, facility-specific economics, permitting, tax reform, production tax credit ("PTC") qualification, and wind performance.

Wind repowering makes sense for Utah customers. For a proposed investment of $1.101 billion, the Company will receive and pass directly to customers PTC benefits of $1.26 billion over ten years, increase the energy production of its wind fleet by an average of 25.7 percent, and improve the overall performance and expected life of its wind facilities. The benefits of repowering are clear and demonstrate why this time-limited resource opportunity for customers is prudent, in the public interest, and should be approved.

PUBLIC INTEREST

Q. Has the Company's proposed resource decision to repower its wind fleet changed in any material way from its initial filing in June 2017?

A. No, other than the fact that overall costs estimates have decreased, and projected energy production has increased. The Company proposes to upgrade or "repower"

999.1 megawatts ("MW") of Company-owned wind capacity by installing longer blades and new nacelles, enabling a significant increase in energy production. Repowering extends the life of the wind facilities and allows them to requalify for PTCs for an additional 10 years. The resource proposal includes 12 wind facilities located in Wyoming, Washington and Oregon. Wind repowering is a time-limited resource opportunity because the repowered facilities must be commercially operational by the end of 2020 to qualify for the PTCs.

Q. What are the requirements for approval of the repowering project under Utah Code Ann. § 54-17-402(3)(b)?

A. I understand that the Commission must determine whether the resource decision is in the public interest, considering the following:

- Whether the decision will most likely result in the acquisition, production, and delivery of service at the lowest reasonable cost to the customers;
- Long-term and short-term impacts;
- Risk;
- Reliability;
- Financial impacts on the utility; and
- Other factors determined by the Commission to be relevant.

Q. Based on these factors, is the wind repowering project in the public interest?

A. Yes. The wind repowering project satisfies the Commission's public interest considerations by reducing customer costs and risks, and increasing reliability. Specifically, repowering: (1) increases energy production; (2) reduces ongoing operating costs associated with aging wind turbines; (3) extends the useful lives of the wind facilities by at least ten years; (4) provides PTCs for an additional 10 years; and

(5) improves the ability of the wind facilities to deliver cost-effective, renewable energy into the transmission system through enhanced voltage support and power quality.

Q. Does the Company's economic analysis demonstrate that the wind repowering project will result in utility service at the lowest reasonable costs to customers?

A. Yes. The Company's current economic analysis, described in Mr. Rick T. Link's supplemental direct and rebuttal testimony, shows that the wind repowering project is part of the least-cost, least-risk portfolio of resources to serve customers. Over the life of the facilities, the repowering project results in present-value customer net benefits in *all* price-policy scenarios, ranging from $121 million (low gas, medium carbon dioxide ("CO_2")) to $466 million (high gas, high CO_2). Using the Company's Integrated Resource Plan ("IRP") models and 20-year planning horizon, the repowering project also shows net benefits in *all* price-policy scenarios, ranging from $139 million (low gas, medium CO_2) to $273 million (high gas, high CO_2). These results indicate that the Company's expected revenue requirement is substantially lower with repowering than without repowering in all cases, making it the lowest reasonable cost option for customers.

Q. To respond to parties' issues and concerns, did the Company extend the review schedule and provide additional economic analysis in this case?

A. Yes. The normal timeline for review of voluntary requests for approval of resource decisions is 180 days. Utah Code Ann. § 54-17-402(6). This case has now been pending for approximately 10 months, or 300 days. In addition, the Company has responded to parties' requests for additional studies by producing analysis that reflects a project-by-project review, changing market conditions, and changes in tax law.

The Company understands that parties were frustrated that the Company's Energy Vision 2020 proposals, including wind repowering, arose at the end of the 2017 Integrated Resource Plan public process and truncated their review. The Company hopes that the 10-month review process in this case, along with the Company's extensive, corroborating analysis develoed in this case using its IRP models, addresses this concern.

Q. Over the course of this case, have the benefits of repowering become more certain, while the risks have decreased?

A. Yes. As described by Mr. Timothy J. Hemstreet, over the last 10 months, the wind repowering project has evolved favorably for customers:

- Estimated costs decreased by 2.4 percent
- Turbine equipment costs are now fixed for all wind facilities, and installation costs are guaranteed for eight of the 12 wind facilities.
- Operations and maintenance ("O&M") costs are largely fixed for the first 10 years for eight of the 12 facilities.
- Incremental energy production increased by 6.5 percent from the estimates included in the original filing, as the Company finalized its turbine selection process to obtain higher-performing turbines for less cost.
- The Company prudently negotiated, or is in the process of negotiating, customer protections to guarantee ongoing equipment availability, which provide greater certainty to the estimated energy production from the repowered facilities.
- The Company has insulated customers from risk associated with construction delays that might compromise PTC eligibility through contractual provisions with turbine suppliers and installers.
- The Company has maintained a substantial cushion both in terms of project costs (for purposes of the five-percent safe harbor) and construction schedules to mitigate PTC-eligibility risk.
- Permitting risk is largely resolved—the Company has final permits for 11 of the 12 wind facilities and expects to complete permitting for the final facility soon.

- Engineering studies are now substantially complete, and the costs associated with final turbine selection and necessary foundation retrofits are included in the Company's cost estimate and economic analysis.

- Wind repowering remains beneficial for customers after accounting for recent changes in the federal tax code.

Q. Several parties claim that the repowering project does not provide the lowest reasonable cost utility service because the estimated benefits are not large enough under every scenario studied. (*See, e.g.*, Hayet Resp., lines 585–587.) How do you respond to these critiques?

A. I disagree that the Commission should approve the wind repowering project only if it meets a specified threshold for benefits under every scenario studied. In the vast majority of scenarios and sensitivities—including those studied by DPU, OCS and UAE—the wind repowering project shows net benefits. Rejecting the project would thus produce higher-cost utility service in almost every circumstances and would not meet the public interest standard. Without repowering, customers also bear the risk associated with market purchases or other costs incurred to produce the energy that would have been produced by the repowered facilities.

Q. Has the Commission previously required a demonstration of net benefits in all scenarios to approve a voluntary resource decision?

A. Not to my knowledge. For example, when the Company sought approval for its voluntary resource decision to install environmental upgrades at the Jim Bridger plant, the Commission found that the resource decision met the statutory standard based on analysis showing that the decision was the most beneficial in six of the nine scenarios modeled. *See In the Matter of the Voluntary Request of Rocky Mountain Power for Approval of Resource Decision to Construct Selective Catalytic Reduction Systems on*

Jim Bridger Units 3 and 4, Docket No. 12-035-92, Redacted Report and Order at 13 (May 10, 2013).

Q. Does the parties' analysis support approval of the repowering project?

A. Yes. Even though parties recommend against approval of the repowering project, their own analysis shows that repowering provides customer benefits under nearly every scenario studied. For example, DPU's analysis shows:

- Through 2036, *all the repowered facilities* provide net benefits under both the medium natural gas/medium CO_2 and low natural gas/zero CO_2 scenarios.

- Through 2050, *all the repowered facilities* provide net benefits under the medium price-policy scenario, nine provide net benefits under all four scenarios studied, two provide net benefits in three of the four scenarios studied, and one provides net benefits in one of the four scenarios studied. Thus, there are net benefits in 43 of 48 scenarios studied. (Peaco Resp., line 399, Table 4.)

OCS's analysis shows:

- Through 2036 (OCS's preferred timeframe for measuring customer benefits), 11 of the 12 repowered facilities produce net benefits under both the medium natural gas/medium CO_2 and low natural gas/zero CO_2 scenarios. (Hayet Resp., line 569, Table 5.)

UAE's analysis shows:

- Through 2036, the repowering project provides net benefits under all nine price-policy scenarios ranging from $100 million to $235 million. (Higgins Resp., line 500, Table KCH-7-RE.)

- Through 2036, 11 of the 12 repowered facilities produce net benefits under both the medium natural gas/medium CO_2 and low natural gas/zero CO_2 scenarios. (Higgins Resp., line 622, Table KCH-13-RE; line 628, Table KCH-14-RE.)

Q. Notwithstanding the repowering project's decreasing risk profile, some parties still raise concerns about PTC qualification. (*See, e.g.*, Zenger Resp., lines 184–202; 228–244.) Does the Company stand by its commitment to assume the risk of non-qualification for PTCs if it is related to the Company's performance?

A. Yes. If the repowered facilities are not 100-percent PTC eligible because of some occurrence within the Company's control, shareholders will hold customers harmless. This commitment extends to entities with whom the Company has contracted for services including contractors, vendors, and suppliers—meaning that if the failure to qualify for PTCs is due to an event within a contractor's control, the Company will hold customers harmless.

Q. How will the Company determine if an event is within its control?

A. Generally, an event is beyond the reasonable control of the Company if it is the result of a change in law or would qualify as a force majeure event as that term is used in the relevant agreements between the Company and its contractors.

CONCLUSION

Q. What is your recommendation to the Commission?

A. I recommend that by June 1, 2018, the Commission issue an order finding that the Company's decision to repower its wind fleet is prudent and in the public interest, and approving the Company's proposals for ratemaking and the continued recovery of the replaced equipment. I also recommend that the Commission reject the parties' proposed conditions to approval and enable the Company to move forward with confidence as it embarks on a project of this magnitude on behalf of its customers.

Q. Does this conclude your supplemental rebuttal testimony?

A. Yes.