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Attorneys for Rocky Mountain Power

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE VOLUNTARY REQUEST OF ROCKY MOUNTAIN POWER FOR APPROVAL OF RESOURCE DECISION TO REPOWER WIND FACILITIES	Docket No. 17-035-39 Application for Approval of Resource Decision to Repower Wind Facilities
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I. INTRODUCTION

In accordance with Utah Code Ann. § 54-17-402, PacifiCorp d/b/a Rocky Mountain Power (“Rocky Mountain Power” or “Company”) submits this Application to the Public Service Commission of Utah (“Commission”). The Company respectfully requests approval of its decision to upgrade or “repower” existing wind resources, as prudent and in the public interest, contingent upon approval of (a) the Company continuing to recover the costs of the existing assets that will be repowered and (b) the Company’s proposed ratemaking treatment. The Company proposes to upgrade or “repower” its wind resources because it provides net benefits to customers by increasing

energy production, reducing operating costs, and requalifying the Company's existing wind resources for federal production tax credits ("PTCs"), which expire 10 years after a facility's original commercial operation date. To achieve the full PTC benefits, the Company must complete the wind repowering project by the end of 2020.

Wind repowering includes the installation of new rotors with longer blades and new nacelles with higher-capacity generators, which will increase energy output by an average of 19 percent without changing the footprint, towers, foundations or energy collector systems of the wind facilities. Using modern technology and improved control systems, the repowered wind facilities will produce more cost-effective energy, using zero-cost fuel over an extended useful life at reduced operating costs, saving customers millions of dollars. Because existing towers and foundations will remain in place and the footprint of the existing facilities are unchanged, the wind repowering project also results in minimal environmental impact and permitting requirements.

The Company estimates that the wind repowering project will cost approximately \$1.13 billion. Because of the magnitude of this capital investment and the overall scope of the project, the Company requests that the Commission approve the wind repowering project before the Company completes equipment orders and begins construction. The Application gives the Commission and interested parties a meaningful opportunity to evaluate the wind repowering project to ensure that the project is reasonable, prudent, and in the public interest.

II. THE APPLICANT

1. PacifiCorp is a public utility providing retail electric service to customers in the six western states of Utah, Wyoming, Idaho, Oregon, Washington, and California, and wholesale electric service throughout the western United States. PacifiCorp provides electric service to retail customers in the state of Utah through its Rocky Mountain Power division, which serves approximately 840,000 customers and has approximately 2,000 employees in Utah.

2. Formal correspondence and requests for additional information regarding this matter should be addressed to:

By e-mail (preferred): datarequest@pacificorp.com

By regular mail:

Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, Oregon 97232

With copies to:

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Informal inquiries related to this Application should be directed to Bob Lively, Utah Regulatory Affairs Manager, at (801) 220-4052.

III. SUPPORTING TESTIMONY

3. This Application is supported by the pre-filed written direct testimony and exhibits of the following Company witnesses:

- **Cindy A. Crane**, President and Chief Executive Officer of Rocky Mountain Power, testifies on the financial ability of the Company to make the wind repowering investment, explains the significant benefits to customers from repowering the Company's wind resources, and outlines the reasons why the wind repowering project is prudent and in the public interest. Ms. Crane also briefly describes the Company's proposals for ratemaking treatment and the continued recovery of the costs of the equipment replaced at the time of repowering.
- **Timothy J. Hemstreet**, Director of Renewable Energy Development, provides a detailed scope of the Company's wind repowering project, including technical

details, qualification for PTC benefits, increased energy production, reduced operating costs, and continued system reliability. Mr. Hemstreet also addresses the status and timing of wind-turbine-generator (“WTG”) equipment purchases, construction requirements, anticipated construction timelines, and the disposition of removed equipment.

- **Rick T. Link**, Vice President of Resource and Commercial Strategy, provides the economic analysis that supports the prudence of the Company’s wind repowering project and quantifies the significant customer benefits resulting from repowering. Mr. Link also explains the wind repowering project planning and analysis included in the Company’s 2017 Integrated Resource Plan (“2017 IRP”).
- **Jeffrey K. Larsen**, Vice President of Regulation, explains the Company’s proposal for the ratemaking treatment of the costs and benefits of the wind repowering project in rates, the accounting treatment of the replaced wind plant equipment, and the inter-jurisdictional allocation of costs.

IV. THE WIND REPOWERING PROJECT

A. The Wind Repowering Project Increases Efficiency and Lowers Operating Costs.

4. Recent advancements in wind generation technology, including innovations in wind turbine design and control systems, allow modern wind turbines to generate greater energy from available wind resources. To take advantage of these recent technologies, the Company proposes to repower most of its Wyoming wind fleet (Glenrock I, Glenrock III, Rolling Hills, Seven Mile Hill I, Seven Mile Hill II, High Plains, McFadden Ridge, and Dunlap); the Marengo I, Marengo II and Goodnoe Hills facilities in Washington; and the Leaning Juniper facility in Oregon. These facilities currently represent a total of 999.1 megawatts (“MW”) of installed wind capacity, with 594 MW in Wyoming, 304.6 MW in Washington, and 100.5 MW in Oregon.

5. Wind repowering involves the installation of new rotors with longer blades and new nacelles with higher-capacity generators. Longer blades increase the wind-swept area of the wind

turbine and allow it to produce more energy at lower wind speeds. The nacelle is the housing that sits atop the tower and contains the gear box, low- and high-speed shafts, generator, controller, and brake. The new nacelles will include sophisticated control systems and more robust mechanical and generator components necessary to handle the greater loads that come with longer blades. Together, the new rotors and nacelles are estimated to increase wind project generation from 11 to 35 percent, or an overall average of 19 percent (21 percent after new interconnection agreements are executed).

6. In addition, the innovative technologies provide for greater control of power quality and voltage, allowing the Company to more easily integrate the energy from the wind facilities into the transmission system and support the reliability of the grid. The new equipment also reduces future operating costs and extends the useful life of each wind plant by approximately 10 years. Over the current life of the repowered facilities, incremental annual energy production exceeds 550 gigawatt hours (“GWh”). Over the extended life, the incremental annual energy production exceeds 3,280 GWh. Importantly, because the wind repowering project involves efficiency improvements to existing facilities, these benefits can be achieved without the costs and complexity of permitting and constructing wholly new facilities.

B. Completing the Wind Repowering Project by the End of 2020 Maximizes PTC Benefits for Customers.

7. The cost-effectiveness of the wind repowering project is driven in part by the fact that repowering requalifies the Company’s existing wind facilities for PTCs, which are set to expire 10 years from their original commercial operation date (expiration dates range from 2016 through 2020). For 2017, wind facilities qualifying for the PTC receive 2.4 cents per kilowatt-hour—or \$24 per megawatt-hour, a value adjusted annually based upon an inflation index.

8. To requalify for PTCs, the repowered wind facility must meet the Internal Revenue Service’s 80/20 test—meaning that the fair market value of the retained property (*i.e.*, tower and foundation in the Company’s proposed project) is no more than 20 percent of the facility’s total value after installation of the new property (*i.e.*, nacelle and rotor). The Company has designed its

wind repowering project to satisfy this test to ensure that the repowered wind facilities are PTC-eligible.

9. Further, to ensure the repowered facilities are eligible for 100 percent of available PTC benefits, in December 2016, the Company contracted with global wind industry leaders General Electric, Inc., and Vestas-American Wind Technology, Inc., to purchase new WTG equipment. These “safe-harbor equipment” purchases allow the repowered wind facilities to qualify for 100 percent of the value of available PTCs, assuming commercial operation by the end of 2020.

10. To achieve commercial operation by 2020, the Company requests that the Commission approve this Application by December 29, 2017, to allow the Company to complete most of the wind repowering work in 2019. The renewal of the PTC has dramatically increased the demand for materials, equipment, and labor for wind facilities. The Company must order equipment and execute construction contracts by early 2018 to ensure that all repowered facilities achieve commercial operation by the end of 2020. A delay in regulatory approval may compromise the Company’s ability to meet the 2020 deadline and achieve the PTC benefits.

11. The Company’s construction schedule will maximize the value of the existing PTCs by minimizing the period between the expiration of the original PTCs and the eligibility for the new PTCs. The original PTCs expire 10 years after each plant became commercially operational. Thus, the PTCs for most of the facilities will expire in 2018 and 2019. Achieving commercial operation in 2019 for most of the facilities will minimize the time during which any wind facilities are ineligible for PTCs.

C. The Proposed Facilities Provide Substantial Customer Benefits and Advance the Public Interest.

12. The Company’s 2017 IRP, filed with the Commission on April 4, 2017, identified wind repowering as a least-cost, least-risk resource. The 2017 IRP is designed to ensure, on a long-term basis, an adequate and reliable electricity supply at a reasonable cost and in a manner that is consistent with the public interest. To that end, the IRP’s primary objective is to identify the best mix of resources to serve customers over the short- and long-term, based on an analysis of the costs and

risks associated with various resource portfolios. The IRP identifies the preferred portfolio as the least-cost, least-risk portfolio that can be delivered through specific action items at a reasonable cost and with manageable risks, while ensuring compliance with state and federal regulatory obligations. The preferred portfolio in the 2017 IRP includes repowering all of the wind facilities included in the Application, except Goodnoe Hills, which was still being analyzed when the IRP was filed.

13. The Company conducted a comprehensive economic analysis of the wind repowering project in support of the Application. This analysis demonstrates that wind repowering will provide substantial customer benefits. The Company analyzed nine different scenarios, each with varying natural gas and carbon dioxide (“CO₂”) price assumptions, and all nine scenarios show customer benefits, ranging from \$41 million when assuming low natural gas and zero CO₂ prices to \$589 million when assuming high natural gas and high CO₂ prices. With medium natural gas price and CO₂ price assumptions, wind repowering results in customer benefits of \$359 million.

14. The wind repowering project creates these benefits by:

- Increasing energy production from the wind facilities between 11 to 35 percent as a result of longer blades and increased generator capacity;
- Reducing ongoing operating costs associated with aging wind turbines;
- Extending the useful lives of the wind facilities by at least 10 years;
- Increasing the output of renewable energy from existing assets, while avoiding the environmental impacts and view-shed issues associated with new facilities;
- Reducing customer costs by requalifying the wind facilities for PTCs for an additional 10 years; and
- Improving the ability of the wind facilities to deliver cost-effective renewable energy into the transmission system through enhanced voltage support and power quality.

D. Proposed Ratemaking Treatment.

15. The Company seeks approval of a new deferral and cost recovery Resource Tracking Mechanism (“RTM”), under Utah Code Ann. § 54-4-1, 54-4-23, 54-17-402, and 54-17-403, to

address the proper ratemaking treatment to match the annual costs and benefits of the wind repowering project until the incremental costs and benefits are fully reflected in base rates, primarily including incremental capital and operating costs, net power costs savings if not captured in the Company's Energy Balancing Account ("EBA"), and PTC benefits. This mechanism will align the costs and benefits so that customers receive the full net benefits from the repowering project while shareholders receive appropriate cost recovery of the prudent investment. Once the full costs are reflected in base rates in a general rate case, the Company proposes that the RTM continue to track only year-to-year changes in PTCs to capture the full impact of the new PTCs. The Company proposes to record and defer, on a monthly basis, these incremental capital and operating costs, net power costs savings not captured in the EBA, and PTC benefits, beginning with the on-line date of the first repowered facility.

16. The Company intends to file new depreciation rates in 2019. At that time, the Company will reset the 30-year depreciable life of the repowered wind facilities, effectively extending the depreciable life of the facilities by 10 to 13 years.

V. LEGAL STANDARD

17. Utah Code Ann. § 54-17-402 authorizes the Commission to approve a utility's proposed "resource decisions" outside of a general rate case. Resource decisions are defined to include decisions relating to "an energy utility's acquisition, management, or operation of energy production, processing, transmission, or distribution facilities or processes." Utah Code Ann. § 54-17-401(2)(a)(i). When considering a request to approve a resource decision, the Commission must determine "whether the decision is in the public interest." Utah Code Ann. § 54-17-402(3)(b). The public interest determination must consider the following:

- Whether the decision will most likely result in the acquisition, production, and delivery of utility services at the lowest reasonable cost to the retail customers of the utility;
- Long-term and short-term impacts;
- Risk;

- Reliability;
- Financial impacts on the utility; and
- Other factors determined by the Commission to be relevant.

18. The Company's decision to repower its wind fleet contingent on approval of continued cost recovery of the replaced equipment and the Company's proposed ratemaking treatment is a resource decision under Utah Code Ann. § 54-17-401(2)(a)(i) because it involves the operation of energy production facilities. The Company requests preapproval of this resource decision to allow for Commission and intervenor review of the wind repowering project before construction begins. The Company can then respond to potential issues and address concerns before embarking on a project of this scope. This Application and the supporting testimony and exhibits provide the Commission and parties with a well-developed record for review and preapproval of the wind repowering project.

19. The wind repowering project is in the public interest. The Company's 2017 IRP and the updated analysis included in Mr. Link's testimony demonstrate the wind repowering project results in the "delivery of utility services at the lowest reasonable cost." Utah Code Ann. § 54-17-402(3)(b)(i). The wind repowering project increases the energy generation of the Company's existing wind facilities, while saving customers money by reducing operating costs and requalifying the facilities for PTCs. The substantial customer benefits exist across all market price and Clean Power Plan scenarios modeled in the 2017 IRP—demonstrating that the wind repowering project is not only least cost, it is also least risk. Utah Code Ann. § 54-17-402(3)(b)(iii).

20. The wind repowering benefits also accrue immediately due to the facilities' requalification for PTC benefits, while the extended life due to the installation of new rotors and nacelles will provide long-term, cost-effective, emission-free generation to serve Utah customers. Utah Code Ann. § 54-17-402(3)(b)(ii).

21. The Company anticipates that the total cost of the wind repowering project will be \$1.13 billion. The Company will fund the wind repowering project through its normal sources of capital, both internal and external, including net cash flow from operating activities, public and

private debt offerings, the issuance of commercial paper, the use of unsecured revolving credit facilities, capital contributions and other sources. Although the wind repowering project is a significant investment, the financial impact of repowering will not impair the Company's ability to continue to provide safe and reliable electricity service at reasonable rates. Utah Code Ann. § 54-17-402(3)(b)(v). In addition, preapproval of the Company's resource decision provides important regulatory support for the Company's current credit rating while it makes the significant capital investments set forth in the 2017 IRP.

VI. PROPOSED PROCEDURAL SCHEDULE

22. To achieve commercial operation of the repowering project by 2020, the Company requests that the Commission adopt the following schedule, with a proposed decision by December 29, 2017:

June 30, 2017	Application Filed
July 7, 2017	Scheduling Conference
July 31, 2017	Technical Conference
September 13, 2017	Intervenor Testimony Due
October 11, 2017	RMP Rebuttal Testimony Due
October 25, 2017	Sur-Rebuttal Testimony Due
November 20, 2017	Hearings Begin
December 29, 2017	Target Order Issued

VII. REQUEST FOR RELIEF

23. WHEREFORE, the Company respectfully requests that the Commission:

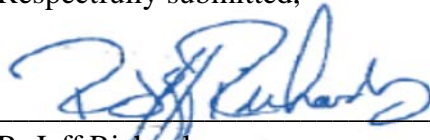
1. Issue an order under Utah Code Ann. 54-17-402 approving the Company's energy resource decision for wind repowering as being prudent and in the public interest, contingent on (a) the continuing cost recovery of the Company's replaced assets, and (b) approval and implementation of the Company's proposed ratemaking treatment;
2. Issue a notice of scheduling conference to set a schedule:
 - a. For interested parties to file comments or testimony;
 - b. For any technical conferences deemed useful to the Commission or interested parties;

- c. For a hearing on these requests; and
- d. For other processes and procedures deemed reasonable or necessary by the Commission in determining whether to approve this request.

24. Rocky Mountain Power will authorize construction as soon as the Commission grants the approval and other regulatory and permitting requirements are met.

DATED this 30th day of June, 2017.

Respectfully submitted,



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ATTACHMENT A

R746-440-1(1)(a)-(k) Information Location Matrix

Paragraph	Filing Requirement	Testimony and Exhibits
(a)	A description of the Resource decision	Hemstreet testimony
(b)	Information to demonstrate that the Energy utility has complied with the applicable requirements of the Act and Commission rules	1. <i>Prefiling Notice of Intent to File a Voluntary Request for Approval of Significant Energy Resource Decision</i> , filed June 23, 2017. 2. Hemstreet testimony 3. Link testimony 4. Larsen testimony
(c)	The purposes and reasons for the Resource decision	Hemstreet testimony
(d)	An analysis of the estimated or projected costs of the Resource decision, including the engineering studies, data, information and models used in the Energy utility's analysis	1. Hemstreet testimony 2. Link testimony
(e)	Descriptions and comparisons of other resources or alternatives evaluated or considered by the Energy utility, in lieu of the proposed Resource decision	Link testimony
(f)	Sufficient data, information, spreadsheets, and models to permit an analysis and verification of the conclusions reached and models used by the Energy utility	Link testimony
(g)	An analysis of the estimated effect of the Resource decision on the Energy utility's revenue requirement	1. Link testimony 2. Larsen testimony
(h)	Financial information demonstrating adequate financial capability to implement the Resource decision	Crane testimony
(i)	Major contracts, if any, proposed for execution or use in connection with the Resource decision	Hemstreet testimony
(j)	Information to show that the Energy utility has or will obtain any required authorization from the appropriate governmental bodies for the Resource decision	Hemstreet testimony
(k)	Other information as the Commission may require	No other information has currently been requested.