**REDACTED**
Docket No. UE 433
Exhibit PAC/1200
Witness: Jeffrey M. Wagner

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**PACIFICORP**

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**REDACTED**

# Direct Testimony of Jeffrey M. Wagner

**February 2024**

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## ATTACHED EXHIBITS

## I. INTRODUCTION AND QUALIFICATIONS

**Q. Please state your name, business address, and current position with PacifiCorp d/b/a Pacific Power (PacifiCorp or Company).**

A. My name is Jeffrey M. Wagner. My business address is 825 NE Multnomah St., Suite 1800, Portland, Oregon, and I am a Renewable Development Manager.

**Q. Please describe your education and professional experience.**

A. I have a Bachelor of Science Degree from Walla Walla University and a Master of Business Administration from the University of Wisconsin-Madison. My career in energy began in 2005, including positions at PPM Energy, Eurus Energy, Volkswind and WPD Wind Projects. Prior to joining PacifiCorp in May 2022, I had various roles including project manager, developer and managing director of wind energy development. To date, I have played a key role in developing over 3,000 megawatts (MW) of wind facilities in eight states. In my current role at PacifiCorp as a Renewable Development Manager, my responsibilities encompass strategic planning, regulatory support, stakeholder engagement, and development and execution of major generation resource additions.

## II. PURPOSE OF TESTIMONY

**Q. What is the purpose of your testimony in this case?**

A. I provide a general description of the Rock Creek I Wind Project (Rock Creek I), an update on development and construction status of the project, and discuss general project costs. The Company is requesting rate recovery for Rock Creek I in this proceeding.

**Q. Why did the Company pursue Rock Creek I?**

A. As further described in the testimony of Company witness Thomas R. Burns, the Company's 2021 Integrated Resource Plan (IRP) preferred portfolio and 2021 IRP Update both identified a resource need based on a near-term capacity deficit. The Company conducted the 2020 All-Source Request for Proposal (2020AS RFP) to identify cost-effective resources to fill this need. Bids were received from third parties for resources in the form of build-transfer agreements (BTAs), power purchase agreements, and tolling agreements. Rock Creek I was bid by a third-party developer (Invenergy) as a BTA, and this bid was identified among the most economical assets to meet the Company's identified resource need.

## III. GENERAL DESCRIPTION

**Q. Please describe the Rock Creek I project.**

A. Invenergy developed and is constructing two separate facilities—the 190 MW Rock Creek I and 400 MW Rock Creek II facilities. Both resources were selected in the 2020AS RFP. The Company will also procure the Rock Creek II facility from Invenergy, however that facility is planned to reach commercial operation in 2025, beyond the test period for this rate proceeding. My testimony therefore is focused on Rock Creek I and Rock Creek II is not discussed. The Rock Creek I project is located in Carbon and Albany counties, Wyoming and will include (without limitation): wind turbine generators (WTGs) with associated foundations and base pads, electrical collector systems, collector substations, access roads, operations and maintenance buildings, fiber optical and/or microwave communication equipment, supervisory control and operating status data acquisition control systems, main power

transformers, meteorological evaluation towers, and overhead transmission tie-lines from the collector substation to the point of interconnection. The point of interconnection will be at the existing Foote Creek substation in Carbon County in southeast Wyoming and will interconnect at 230-kilovolts.

**Q. Have preliminary evaluations of the wind potential been performed for Rock Creek I?**

A. Yes. Wind resource studies completed for the project indicate that the Rock Creek I site is suitable for high capacity factor wind facilities.[1] Moreover, the site is adjacent to the Company's existing High Plains, McFadden Ridge and Foote Creek Rim wind facilities. Wind data collected from the Company's existing operating wind projects in the area, and the operational history of these projects, demonstrate that the Rock Creek I site has a favorable wind regime suitable for a high performance wind energy facility.

**Q. What is the expected operational life of Rock Creek I?**

A. Rock Creek I has an anticipated operational life of 30 years, which aligns with the Company's currently approved depreciable life for all of its existing wind resources.

**Q. Has the Company received a certificate of public convenience and necessity (CPCN) for Rock Creek I?**

A. Yes. The Company filed a CPCN application with the Wyoming Public Service Commission (Wyoming Commission) in August 2022, and the Wyoming

[1] Confidential Exhibit PAC/1201 Energy Yield Assessment for Rock Creek.

Commission approved the application during public deliberations held on February 28, 2023.[2]

## IV. DEVELOPMENT AND CONSTRUCTION STATUS

**Q. What is the current status of Rock Creek I?**

A. Development efforts at Rock Creek I have been completed and the project is now in construction. Invenergy's development efforts included multiple years of wind resource analysis, substantial wildlife and environmental analyses used to design the project and minimize environmental impacts, securing site control through wind energy leases with site property owners, and securing an interconnection agreement with PacifiCorp's transmission function. Invenergy also received conditional use permits in Carbon and Albany Counties and its permit from the Wyoming Department of Environmental Quality, Industrial Siting Division, to support the construction and ongoing operation of the wind facilities. Invenergy is responsible for the final development and construction of the project in accordance with all permitting and technical requirements. As of December 2023, 90 percent of civil construction was complete and all turbine foundations were complete and backfilled. Turbine deliveries are planned to begin in May 2024. Construction remains on track to enable the project to complete testing and commissioning in the fourth quarter of 2024 and to be placed in-service in December 2024.

[2] *In re Rocky Mountain Power Rock Creek CPCN,* Docket No. 20000-623-EN-22, Record No. 17154, Order 29595 (Aug. 9, 2023).

**Q. Has PacifiCorp conducted due diligence to confirm the development status of the project?**

A. Yes. As part of the 2020AS RFP and throughout the subsequent negotiations with Invenergy, PacifiCorp has conducted due diligence to confirm the on-time development of various items including interconnection status, wind resource performance, production tax credit (PTC) eligibility, site control, permitting status, and conformance to technical specifications. This due diligence informed the Company's negotiations with Invenergy on the scope, schedule, cost, and other terms to establish the BTA.

**Q. Has the Company executed a BTA for Rock Creek I?**

A. Yes. The Company and Invenergy executed a binding BTA for Rock Creek I on March 24, 2023. The BTA includes provisions for the supply of WTGs for the project, balance of plant construction by a qualified wind energy contractor, and ongoing management of the complete construction of the project. The Company also executed an operations and maintenance agreement with Invenergy which provides for ongoing service and maintenance of the project after it achieves commercial operation.

**Q. Please explain the key terms and customer protections of the BTA.**

A. Under the BTA, Invenergy is obligated to develop, engineer, procure equipment for, construct, and transfer ownership of Rock Creek I to the Company. The planned in-service date is December 2024. PacifiCorp is obligated to pay a defined purchase price to Invenergy under the BTA. The purchase price is fixed, but can be amended based on certain events. The BTA contains pre- and post-start of construction risk and

cost-sharing mechanisms. As Rock Creek I started construction in April 2023, the pre-construction protections served their purpose and Invenergy's construction activities remain on track to achieve the in-service date of December 2024. Examples of cost mitigation protections include:

a. [redacted]

b. [redacted]

c. [redacted]

[redacted]

d. Liquidated Damages: In the event that the project is delayed, Invenergy is required to pay liquidated damages to PacifiCorp.

**Q. Who is responsible for construction of Rock Creek I?**

A. Invenergy is responsible for construction of Rock Creek I, and is utilizing and managing multiple contractors that are engaged in different aspects of the construction. Invenergy is managing the construction progress with PacifiCorp oversight until construction is complete.

**Q. Who will be responsible for supplying WTGs for Rock Creek I?**

A. The WTGs will be purchased and delivered according to the terms of a turbine supply agreement which was negotiated and executed by Invenergy. The project is installing WTGs manufactured by [redacted] with a nominal nameplate capacity of [redacted] MW each and rotor diameter of [redacted] meters.

**Q. When will construction begin and end?**

A. Construction commenced in the second quarter of 2023, with a planned in-service date of December 2024 for Rock Creek I, assuming normal construction circumstances such as weather conditions, labor availability, materials delivery, and permit and agreement processing durations.

**Q. How will the Company oversee construction of the project to maintain the proposed in-service date?**

A. PacifiCorp's Owner's Engineer oversees construction to ensure the project will be completed on time. This includes reviewing all design submittals to ensure Invenergy meets the technical specification and performance requirements outlined in the BTA, and making periodic site visits to ensure that critical infrastructure is installed per the design documents and has passed acceptability testing.

PacifiCorp also uses full-time on-site inspector(s) to ensure that Invenergy adheres to the project schedule and builds the project consistent with the terms of the BTA. This includes monitoring Invenergy's day-to-day activities, attending daily site meetings, and providing inspection services as needed. PacifiCorp is holding weekly or bi-weekly project status meetings with Invenergy, during which Invenergy reports on the status of the project, discusses critical issues that impact schedule, and addresses the status of any recovery plans as needed.

**Q. Who will operate and maintain Rock Creek I?**

A. Once construction is complete, Invenergy will provide certain operations and maintenance services for the first five years of operation. During the initial five-year period, the Company will oversee Invenergy to ensure compliance with all relevant agreements and may self-perform any operations and maintenance activities that are not included in the scope of Invenergy's work.

Beginning in the sixth year of operation, the Company expects to assume responsibility for operations and maintenance activities at Rock Creek I. The Company has an experienced team of personnel that are qualified to operate and

maintain Rock Creek. The Company currently owns, operates, and maintains an extensive wind generation fleet that includes the High Plains, McFadden Ridge, Foote Creek I, Seven Mile Hill I and II, Ekola Flats, TB Flats I and II, and Dunlap projects in this region of Wyoming, amounting to over 1,240 MW of wind generation. Once construction is complete, the wind turbine supplier will provide a warranty for Rock Creek I for a period of time, during which any significant repairs will be conducted by the wind turbine supplier. In addition, the wind turbine supplier or other third parties may be engaged from time to time to help operate and maintain the project.

**Q. Has Invenergy obtained the necessary local permits for the project?**

A. Yes. Carbon County issued a Conditional Use Permit for the project on November 16, 2021, and Albany County issued a Conditional Use Permit for the project on January 18, 2022. In addition, the Industrial Siting Council approved Invenergy's application for an Industrial Siting Permit on April 15, 2022. A CPCN was granted to PacifiCorp by the Wyoming Commission on February 28, 2023. Invenergy has also been collaborating with the U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department in developing and implementing the project. Rock Creek I remains on-track for completion and an in-service date of December 2024.[3]

[3] *See, e.g., Carbon County Conditional Use Permit – Resolution No. 2021-41, Wyoming County Clerk, Book 1381, p. 50* (November 16, 2021); *Albany County Conditional Use Permit – WEC-01-21 (January 18, 2022; to be recorded); Wyoming Department of Environmental Quality, Industrial Siting Council - Industrial Siting Permit - Docket No. DEQ/ISC 21-07* (April 15, 2022); *Department of the Air Force, Siting and Mitigation Agreement for Rock Creek Wind Project in Rock River, WY* (February 18, 2021); *Department of Defense, Mitigation Response Team Letter of No Adverse Impact* (February 24, 2021); *Carbon County Road Use Agreement, approved by Carbon County Board of County Commissioners* (November 28, 2022); *Albany County Road Use Agreement, approved by the Albany County Board of County Commissioners* (January 3, 2023); *Wyoming Department of Transportation Road Use Agreement, approved and executed by the Transportation Commission of Wyoming and the Wyoming Department of Transportation Chief Engineer* (January 10, 2023).

## V. PROJECT COSTS

**Q. What is the estimated capital cost for the project?**

A. The estimated capital costs for Rock Creek I is [redacted]

Company witness Sherona L. Cheung's direct testimony discusses these costs for Oregon rates in more detail.

**Q. How did the Company estimate construction and operations and maintenance (O&M) costs for the project?**

A. Project costs are based on negotiations with Invenergy. Interconnection costs were informed by the cost estimates included in the executed Large Generator Interconnection Agreement and interconnection study that informed the interconnection agreement. The Company's costs for engineering, legal, internal project management, and allowance for funds used during construction were estimated based on the Company's experience with development and construction of past wind facilities. O&M cost estimates are based on negotiations with Invenergy and on the Company's experience with wind resource O&M budgets and third-party contracts for the Company's existing wind facilities.

**Q. Will Rock Creek I qualify for federal PTCs?**

A. Yes. Under the Inflation Reduction Act (IRA), the Company believes that Rock Creek I qualifies for 100 percent of the PTC available for projects placed into service after 2021. For projects placed in service after 2022, the IRA also provides for an additional 10 percent bonus credit if the project is located in an "energy community." This definition includes census tracts, or any directly adjoining census tracts, in which

(1) after 1999 a coal mine has closed, or (2) after 2009 a coal-fired electric generating unit has been retired. With an expected in-service date of 2024 for Rock Creek I the Company expects the project to qualify for a PTC equal to 110 percent of the full credit available. This credit will be returned to customers in the Company's annual Power Cost Adjustment Mechanism filing.

**Q. Did the Company assess the customer benefits provided by the project?**

A. Yes. Company witness Burns provides a detailed economic analysis of the significant customer benefits that result from the acquisition of Rock Creek I in his testimony.

## VI. CONCLUSION

**Q. Please summarize your testimony.**

A. The Company successfully negotiated a BTA with Invenergy that prudently manages risks, mitigates costs, allows effective oversight, and ensures that Rock Creek I remains on schedule. The project will provide significant benefits to Oregon customers, and I recommend the Public Utility Commission of Oregon approve the inclusion of Rock Creek I in the Company's retail rates.

**Q. Does this complete your direct testimony?**

A. Yes.

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**Exhibit Accompanying Direct Testimony of Jeffrey M. Wagner**

**Energy Yield Assessment for Rock Creek**

**February 2024**

# THIS EXHIBIT IS CONFIDENTIAL IN ITS ENTIRETY AND IS PROVIDED UNDER SEPARATE COVER

Docket No. UE 433
Exhibit PAC/1202
Witness: Jeffrey M. Wagner

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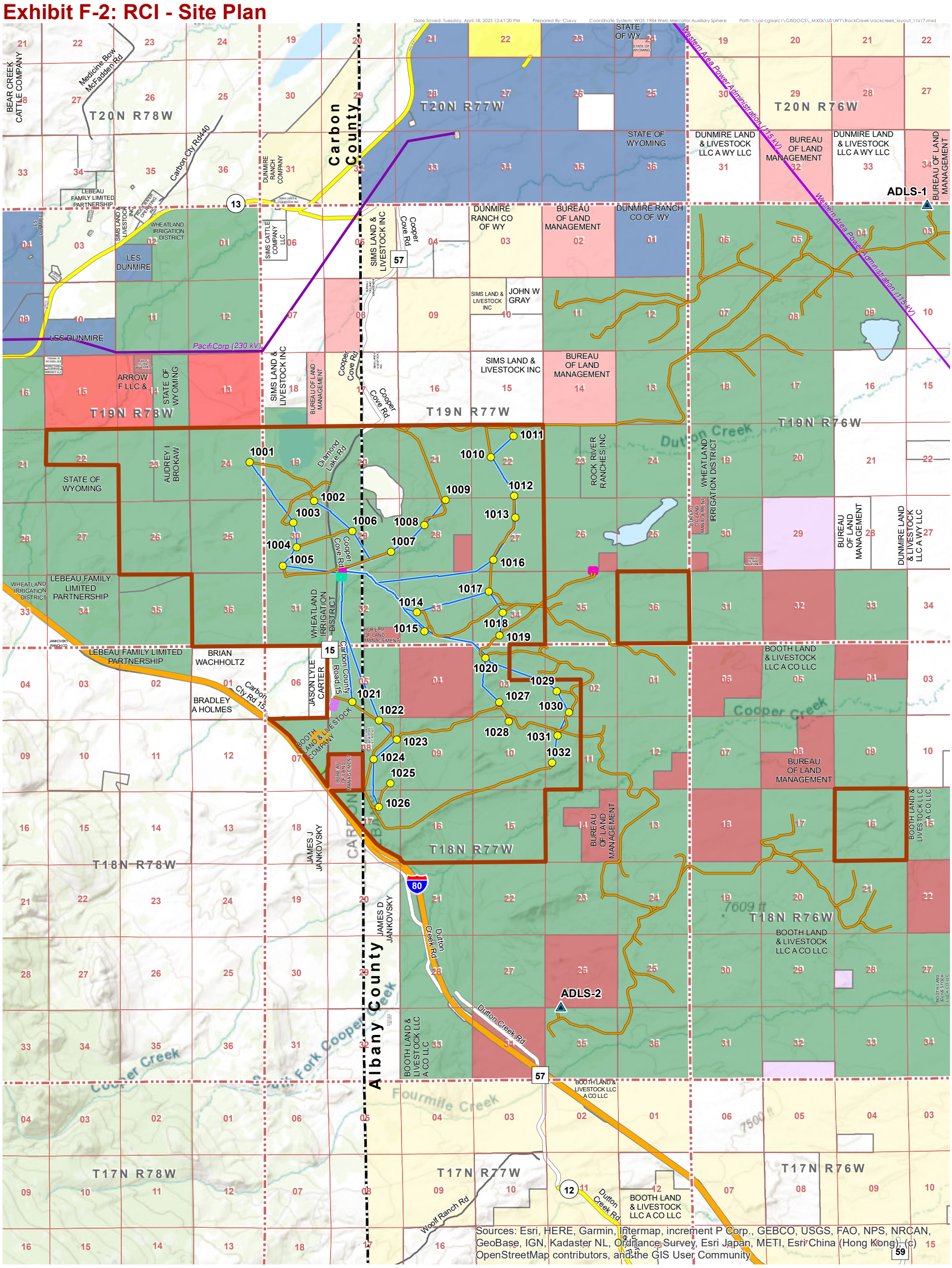
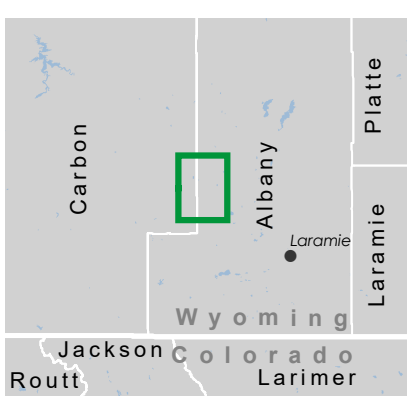
**Exhibit Accompanying Direct Testimony of Jeffrey M. Wagner**

**Site Layout for Rock Creek**

**February 2024**

# Exhibit F-2: RCI - Site Plan




## Legend

**Layout**
- Turbine Location
- MET Tower
- Collection
- Access Road
- Laydown Yard
- Marshalling Yard
- O&M Building
- Project Substation

- Temporary Intersection Improvements
- Rock Creek I Project Boundary

**Landowner Parcel Status**
- Not Participating
- Participating - Wind Agreement
- Participating - Transmission Agreement
- County Boundary

- Township/Range Boundary
- Section Line

**Road Classification**
- Interstate Highway
- US/State Route
- County Road
- Local Road

**Transmission Line**
- 100 - 161 kV
- 230 - 300 kV

1 0 1
Miles

# RCI - Project Site Plan

Rock Creek I Wind Energy Center | Albany & Carbon Counties, Wyoming

**SUBJECT TO CHANGE AT SUBSTANTIAL COMPLETION**

April 19, 2023

Invenergy