

**REDACTED**

Rocky Mountain Power

Exhibit RMP\_\_ (CAT-4SD)

Docket No. 20000-520-EA-17

Witness: Chad A. Teply

BEFORE THE WYOMING PUBLIC SERVICE  
COMMISSION

ROCKY MOUNTAIN POWER

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**REDACTED**

Exhibit Accompanying Supplemental Testimony of Chad A. Teply

Requirements of Commission Rule Section 21(c) for Uinta

January 2018

## **Requirements of Commission Rule Section 21(c) For the Uinta Wind Energy Project**

### **A. Name and Address of the Applicant (Section 21(c)(i)(A)).**

This information was provided in the application filed June 30, 2017.

### **B. Type of Plant, Property, or Facility Proposed to be Constructed or Acquired (Section 21(c)(i)(B)).**

1. The Uinta Wind Project is proposed to be a commercial-scale wind energy generation system, together with all necessary appurtenances and related facilities. The size of the proposed Project is up to approximately 161 MW.

### **C. Description of the Facilities Proposed to be Constructed or Acquired, Including Preliminary Engineering Specifications in Sufficient Detail to Properly Describe the Principal Systems and Components, and Final and Complete Engineering Specifications When They Become Available. ((Section 21(c)(i)(C)).**

2. The Uinta Wind Project is a nominally 161 MW facility that will interconnect to the Company's system at the Whitney Canyon substation, which is located within the northern part of the Project area. Development activities commenced at the Project site in 2015 immediately north of the operating Wyoming Wind Energy Center. In 2015, initial contact was made with the Project's landowners, a Large Generator Interconnection Request was filed for 120 MW, and initial consultations occurred with the United States Fish and Wildlife Service ("USFWS") and the Wyoming Game and Fish Department ("WGFD"). In 2016, the majority of the private and state land leases were signed, five meteorological towers were permitted and installed, environmental studies commenced, local stakeholder engagement began, a public open house was voluntarily conducted, and a Conditional Use Permit ("CUP") was requested from and approved by the Uinta County Commission on a 3-0 vote. In 2017, site control acquisition activities were finalized for an expanded area, environmental agency consultation continued, local stakeholder engagement continued, a second Large Generator Interconnection Request was submitted for another 101 MW, a CUP for the expanded Project area was requested from and approved by the Uinta County Commission on another 3-0 vote, and the Project was proposed and initially short-listed by the Company in its 2017R Request for Proposals ("RFP"). In 2018, the Project plans to submit an application to the Wyoming Industrial Siting Council and execute Large Generator Interconnection Agreements.

3. The Project may include all or any of the following: (i) wind energy generating systems including supporting towers, foundations, and any other associated equipment or structures (together, "Wind Turbines"); (ii) overhead and underground electrical distribution, collection, transmission and communications lines and facilities, electric transformers, electric substations, energy storage facilities, telecommunications equipment, and other necessary interconnection facilities; (iii) roads and crane pads; (iv) meteorological towers and wind measurement equipment; and (v) operations and maintenance / control building, maintenance yard(s), staging yard(s), storage area(s), and related facilities and equipment. The Project will be located in northwestern Uinta County, in southwestern Wyoming.

4. Additional Project description and information are included in Confidential Exhibit RMP\_\_(CAT-4SD-1). Though the Applicant for this Project is the Company, the Project and all of its associated development assets are currently held by Invenergy LLC (“Invenergy”). Background information for Invenergy LLC is contained in Confidential Exhibit RMP\_\_(CAT-4SD-7).

5. Site wind resource data is provided in Confidential Exhibit RMP\_\_(CAT-4SD-7).

**D. The Rates, if any, Proposed to be Charged for the Service that will be Rendered Because of the Proposed Construction or Acquisition (Section 21(c)(i)(D)).**

6. The impact of the proposed facilities on the Company’s revenue requirement and the Company’s proposed ratemaking treatment is described in the testimony of Ms. Joelle R. Steward. In addition, the Company will provide service on the Transmission Projects subject to the terms and conditions of its Open Access Transmission Tariff (“OATT”).

**E. The Estimated Total Cost of the Proposed Construction or Acquisition (Section 21(c)(i)(E)).**

7. The Build-Transfer proposal submitted in October 2017 contained pricing that is summarized in Confidential Exhibit RMP\_\_(CAT-5SD).

**F. The Manner by Which the Proposed Construction or Acquisition will be Financed (Section 21(c)(i)(F)).**

8. The Company intends to finance the proposed wind 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. The financial impact of the proposed investment will not impair the Company’s ability to continue to provide safe and reliable electricity service at reasonable rates. In addition, preapproval of the Company’s resource decision provides important regulatory support for the Company’s current credit rating. This is described in more detail in Ms. Cindy A. Crane’s testimony. The build-transfer agreement (BTA) will incorporate a milestone payment schedule to be established during negotiations between the Company and Invenergy. The rate of spend would generally be consistent with the construction schedule included in Confidential Exhibit RMP\_\_(CAT-4SD-6).

**G. Documentation of the Financial Condition of the Applicant (Section 21(c)(i)(G)).**

9. Rocky Mountain Power’s (“RMP”) current financial condition is on file with the Commission in response to the annual reporting requirements in Commission Rule Section 32 and through RMP’s semi-annual earnings reports. The Company is financially capable of funding this project.

**H. Estimated Annual Operating Revenues and Expenses that are Expected to Accrue from the Proposed Construction or Acquisition, including a Comparison of the Overall Effect on the Applicant's Revenues and Expenses (Section 21(c)(i)(H)).**

10. To address this requirement of the Commission's rules, PacifiCorp provides the economic analysis presented in Mr. Rick T. Link's testimony and exhibits, which show the revenue stream and expenses associated with the wind projects and demonstrates that the project is a risk-adjusted, least-cost alternative to serve customer loads.

**I. Estimated Start and Completion Dates of the Proposed Construction or Date of Acquisition (Section 21(c)(i)(J)).**

11. If the Project moves forward as a BTA, Invenergy expects to execute EPC contracts for the Project in or around April 2018. The equipment contracts for the Project are expected to be executed in May 2019, and construction is expected to begin in April 2019.

12. The Company expects the Project to become commercially operational by December 31, 2020. Refer to Confidential Exhibit RMP\_\_(CAT-4SD-6) for a preliminary construction schedule which supports a construction start date in 2019 and a commercial operations date in 2020.

**J. Description of the Proposed Site, Including the Counties in Which the Resources will be Located, with a Metes and Bounds Description, and a Description of the Terrain where the Resources will be Constructed (Section 21(c)(ii)(A)).**

13. The Project is located in northwestern Uinta County, Wyoming, within the Wyoming Basin Level III Ecoregion of southwest and central Wyoming within the Foothill Shrublands and Low Mountains Level IV Ecoregions. Confidential Exhibit RMP\_\_(CAT-4SD-2) provides additional information on the Proposed Site. The Project area is northeast of the city of Evanston, between Wyoming Highway 89 and U.S. Highway 189. Whitney Canyon Road / Whitney Canyon Haul Road generally run through the middle of the Project area.

**K. Geological Report of the Proposed Site, Including Foundation Conditions, Groundwater Conditions, Operating Mineral Deposits Within a One-Mile Radius and a Topographical Map Showing the Area Within a Five-Mile Radius (Section 21(c)(ii)(B)).**

14. Information related to the geological conditions are shown in Confidential Exhibit RMP\_\_(CAT-4SD-3).

**L. Description of and Plans for Protecting the Surrounding Scenic, Historical, Archaeological and Recreational Locations; Natural Resources; Plant and Animal Life; and Land Reclamation (Section 21(c)(ii)(C)).**

**a. General Description of the Devices to be Installed at the Major Utility Facility to Protect Air, Water, Chemical, Biological and Thermal Qualities (Section 21(c)(ii)(C)(I)).**

**b. Designed and Tested Effectiveness of Such Devices (Section 21(c)(ii)(C)(II)).**

**c. Operational Conditions for Which the Devices were Designed and Tested (Section 21(c)(ii)(C)(III)).**

15. **Scenic:** Uinta County is home to the existing Wyoming Wind Energy Center and two phases of the Mountain Wind Project; residents are generally accustomed to seeing operating turbines directly southeast of the planned Project area. The project will generally appear to be an expansion of the Wyoming Wind Energy Center. The project is not expected to be visible from the city of Evanston to the southwest. The project will be visible when driving between Evanston, WY and Woodruff, UT along State Highway 89 and when driving between Evanston and Kemmerer along US Highway 189.

16. The BLM classifies areas of visual impacts into zones 1-4, with 1 being the areas that are most sensitive to visual impacts, and 4 being the least. Though there will be no involvement of BLM lands, the Project is in a BLM-classified VRM Zone 4, classified as least sensitive to visual impacts. See Confidential Exhibit RMP\_\_\_(CAT-4SD-4) for the BLM visual resource map for more detail. In addition, visual simulation surveys will be made available to the public through permitting processes to demonstrate the expected visual impacts of the facilities. The fact that the Project is adjacent to existing facilities dramatically reduces negative impacts on Wyoming's unique viewsheds by concentrating development in areas that are already affected by wind infrastructure.

17. Confidential Exhibit RMP\_\_\_(CAT-4SD-4) also provides a visual rendering of the project from various perspectives and locations. In the interest of producing a conservative rendering, a larger quantity of turbines (associated with a smaller MW rating) are depicted.

18. One of the reasons the Project area was selected for wind energy development is that it contains so few residences. Another reason is that it would be adjacent to an already operating wind generating facility, which has been operating since 2003. In order to capture the wind energy that makes the Project area a good one for wind power production, the Wind Turbines generally will be located on elevated areas when possible. Wind Turbines are acknowledged to be tall structures. They will be set back from residences and non-participating property lines in accordance with setback standards approved by Uinta County in order to minimize visual impacts to residents and non-participating property owners in the vicinity. From the city of Evanston, the Project generally is not expected to be visible, because it will be blocked from view by elevated terrain that exists between the city and the Project area.

19. Wind generating facilities have been operating in Uinta County for more than 14 years in nearby locations, as shown on the map in Confidential Exhibit RMP\_\_\_(CAT-4SD-4). From many areas where the proposed Project is visible, an existing wind generating facility is already visible. The Project also is not near any scenic routes or byways, as designated by the Wyoming Department of Transportation, as shown in the Scenic Areas map in Confidential Exhibit RMP\_\_\_(CAT-4SD-4), nor is it near any National Parks or Wyoming State Parks, as shown in Confidential Exhibit RMP\_\_\_(CAT-4SD-4).

20. **Archeological and Historical:** A contractor performed a desktop search of known cultural and archeological sites in the Project area. Beaver Creek Archeology completed a Phase I Cultural Resources Survey in February 2016 and again in January 2017 for an expanded area, utilizing Wyoming State Historic Preservation Office (“WSHPO”) and National Register of Historical Places (“NRHP”) records and archives over an area encompassing the Project area plus a one-mile buffer zone. The file search revealed 17 sites, no site leads, and 45 isolated finds within the Project area and a one-mile buffer. For the most part, the resources identified are not eligible for NRHP listing. No surveys are required by the state or federal government prior to construction on private land in the Project area. The State Land parcels within the Project area will require a field survey before any ground disturbance occurs and coordination with the Wyoming Office of State Lands and Investments (“WOSLI”). The project will be designed to avoid or minimize impact to items identified in the report. Invenergy also will voluntarily conduct a pre-construction field archeological survey to identify any artifacts in the field that were not contained in the WSHPO’s database. In the event items are identified, the locations of project facilities will be adjusted as appropriate. Finally, during construction, Invenergy plans to implement an Unanticipated Discoveries Plan that will give instructions to the construction crew members as to what to do in the event additional artifacts are identified during soils excavation. Essentially, work in the area will halt while the construction crew member’s supervisor contacts the WSHPO to determine appropriate next steps. Invenergy intends to meet with the WSHPO to consult on the cultural, archaeological, and paleontological resources in the area and plans to send them a copy of the report described above. Communications with the WSHPO will continue thereafter. A courtesy copy also is planned to be submitted to the Uinta County Museum for review.

21. **Recreational:** The primary known recreational activities in and near the Project are hunting and fishing. Maps of the primary fishing and hunting areas are shown in Confidential Exhibit RMP\_\_\_(CAT-4SD-4). A Green Ribbon fishing area is located along the southern edge of the Project area, but it is not expected to be impacted by Project construction or operations. No Blue, Red, or Yellow Ribbon fishing areas are known to occur in the Project area. According to maps produced by the Wyoming Game and Fish Department, the following are the primary big game hunting areas relative to the Project area:

- Antelope: The Project is located within the area designated as area 100 for antelope.
- Bighorn Sheep: The Project is not located within a designated Bighorn Sheep hunting area.
- Deer: The Project is located within the area designated as areas 168 and 134 for deer.
- Elk: The Project is located within the area designated as areas 105 and 106 for Elk.
- Moose: The Project is located within the areas designated as Moose hunting area 27 and 36.
- Mountain Goat: The Project is not located anywhere near designated Mountain Goat hunting areas, which are located entirely north of the Project area.

22. Invenergy is currently performing a study of aquatic resources in the Project area. Invenergy is planning to avoid the placement of facilities in or near waterways such that fish populations would be impacted; therefore, no impacts are expected. At the Dunlap wind energy facility, which has been operating since 2010 in Carbon County in eastern Wyoming, a peer-reviewed multi-year study comparing pre-construction and post-construction antelope activity indicated that there were negligible, if any, negative impacts to antelope, which is one of the primary game species in the region.

23. In their wind energy leases, the underlying landowners retain the ability to recreate and to allow others to recreate in the Project area. Except for the temporary, short-term management of certain potential safety situations during construction, impacts to the landowners' recreation rights are not expected to be impacted.

24. **Natural resources, and plant and animal life:** A comprehensive pre-construction wildlife and habitat assessment of the Project is being conducted consistent with the tiered approach of the U.S. Fish and Wildlife ("USFWS") Wind Energy Guidelines ("WEG; 2012") and the USFWS Eagle Conservation Plan Guidance (ECPG; 2013), and the Wildlife Protection Recommendations for Wind Energy Development in Wyoming ("WGFD 2010"). Per the WEG, a Tier 1 Preliminary Site Evaluation and on-site Tier 2 Site Characterization was conducted to identify native habitat, ecological communities, and other areas of broad-scale wildlife value, as well as an assessment of general wildlife habitat, areas where development may be precluded by law or due to sensitive habitat, and identification of potentially suitable habitat for state and federally-listed threatened and endangered species and species of concern within the Project area. In addition, extensive Tier 3 field studies have been conducted and are being ongoing to evaluate the temporal and spatial presence of avian and bat species and other species of concern. The environmental resources near and/or within the Project have been identified and are well understood. Invenergy continues to gather additional data to further its understanding of the area.

25. Furthermore, consultation with the USFWS and the WGFD on this Project began in 2015, before any land was leased, and will be ongoing throughout Project construction. Invenergy has worked closely with both agencies during project development to date. The methods and results of the pre-construction surveys to-date have been shared with the USFWS and the WGFD. Invenergy has met with the USFWS and WGFD regularly during the development process as shown in the Project Surveys.

26. Environmental surveys at the Project are well underway, and the critically important spring surveys are complete. Results of Invenergy's pre-construction surveys were taken into consideration in the siting of the Project turbines and infrastructure and will be incorporated into a voluntary, Project-specific Bird and Bat Conservation Strategy ("BBCS") and Eagle Conservation Plan ("ECP"). The BBCS and ECP will identify avoidance, minimization, and mitigation measures as appropriate to limit impacts to wildlife. Mitigation measures will be implemented in coordination with the USFWS and the WGFD. Further, the Project-specific BBCS and ECP are expected to include a protocol for at least one (1) year of post-construction monitoring, as well as adaptive management measures that will be implemented as necessary during operation. The Project will not construct any turbines in core sage grouse areas. There are no known Conservation Reserve Program ("CRP") properties within the Project area.

27. USFWS and WGFD have been coordinated with closely to ensure that all surveys required to support an Eagle Take Permit are being conducted in the appropriate manner, including substance and form of data recorded, should the Project decide to pursue a permit.

28. **Land reclamation:** At the end of construction, the Project will restore the areas impacted to a condition reasonably similar to their pre-construction condition. Contours will be graded so

that they blend in with surrounding topography. Exposed soils will be re-seeded with a seed mix that is consistent with surrounding vegetation and is determined in consultation with the underlying landowners and the local conservation district or another similar organization. All construction debris will be removed and disposed of in a manner consistent with all relevant local, state, and federal regulations.

29. Efforts and devices to protect Air, Water, Chemical, Biological and Thermal Qualities are discussed below:

a. **Air:** The Project will have only minimal, short-term impacts on air quality during construction. The only air emissions will be from construction equipment, aggregate crushing for roads, concrete batch plants for turbine foundations, which will be permitted, and fugitive dust from driving on roads. Fugitive dust is planned to be controlled by the project. As a renewable energy generation project, the operation of the facilities will not result in emissions of greenhouse gases or other pollutants. Further, the operation of the facilities will result in long-term reduction of air pollutants that otherwise would have been emitted into the air by conventional power plants by supplanting some output from conventional power plants. As of the date of this Application, no portion of Uinta County is in a nonattainment area, as per <https://www3.epa.gov/airquality/greenbook/ancl.html>.

b. **Water:** Surface water resources in the Project area are shown in Confidential Exhibit RMP\_\_\_(CAT-4SD-1). Drainage areas within the Project area will be designed to minimize the release of sediments into wetlands and waterways during construction, even during storm events. The design may include any of the following: erosion control blankets, silt sock, silt fence, rip rap, sedimentation ponds, covering or seeding exposed soils, and other methods as proposed by the construction contractor and approved by Invenenergy. The details of the surface drainage plans will be described in a Storm Water Management Plan, which will be created prior to construction.

c. **Chemical.** All solid wastes and hazardous materials related to the construction, operation and maintenance of the Project shall be handled, stored or disposed of in accordance with the approved waste management plan and in accordance with all applicable Federal, State and County laws and regulations. Any hazardous materials or wastes that are present at the site and associated with the Project will be properly contained, and a spill response plan will be in place to ensure that, in the event of an accidental spill or leakage, there will be no contamination or transmission downstream.

d. **Biological.** Environmentally responsible wind energy development is an important part of Invenenergy's and PacifiCorp's company cultures. As such, it is Invenenergy's typical practice to follow the US Fish and Wildlife Service's Wind Energy Guidelines ("WEG") for land-based wind energy projects. A copy of the WEG can be found at [https://www.fws.gov/ecological-services/es-library/pdfs/WEG\\_final.pdf](https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf). The WEG provides for a five-tiered approach for assessing biological resources at a wind project site and for avoiding, minimizing, and mitigating for impacts to sensitive wildlife and habitat. Invenenergy is currently consulting with the USFWS and the WDGf and performing a series of environmental studies. Invenenergy also expects to implement certain avoidance, minimization, and mitigation measures for certain species, as appropriate.



e. **Thermal qualities.** Protection measures for thermal qualities are not expected to be applicable or needed for the Project.

30. **Design and tested effectiveness of protection devices to be used.** The Project will conform to applicable industry standards, such as American National Standards Institute (“ANSI”), Institute of Electrical and Electronics Engineers (“IEEE”), and National Electrical Safety Code (“NESC”). The Applicant will supply the applicable design certifications from the equipment manufacturers once the Wind Turbine manufacturer has been selected and the relevant documentation is available from the manufacturer. These design certifications will come from a verified company.

Development, construction, operation, maintenance, and decommissioning activities will be conducted in accordance with prudent industry practices, based on experience gained by Invenergy and the Company, as appropriate.

31. **Operational conditions under which the protection devices were designed and tested**

Development, construction, operation, maintenance, and decommissioning activities will be conducted in accordance with prudent industry practices, based on experience gained by Invenergy and the Company, as appropriate.

**M. Description of Potential Safety Hazards (Section 21(c)(ii)(D)).**

32. The following is a description of how potential safety hazards are planned to be addressed.

33. Wind Turbines are tall structures. The Applicant proposes to avoid and minimize safety risks to low-flying aircraft by installing aviation safety lights on the tops of most of the wind turbine nacelles, in accordance with the requirements of the Federal Aviation Administration (“FAA”). The locations of all of the wind turbines will be registered with the FAA and shown on maps used by pilots and aviators.

34. The construction and operations and maintenance personnel selected for the Project will be given site safety rules. They will be expected to participate in initial and regular follow-on safety training by qualified individuals. They will be expected to adhere to OSHA safety standards.

35. The Project will continue coordinate with local Fire, Law Enforcement, and Emergency Management personnel in order to plan and train for emergency response. A preliminary emergency response plan will be prepared and submitted to Uinta County Fire, Law Enforcement, and Emergency Management personnel for review.

36. The wind turbines are inherently unclimbable, except by way of an interior ladder, which is secured behind a locked door. There are no appurtenances on the exterior of the wind turbine that would allow a person to climb higher than a few feet off of the ground. This ensures that there will be no casualties due to falls by members of the public.

37. The private site access roads to the wind turbines and other Project facilities will be marked as “private” and will have access restricted to the public, typically by way of locking gates.

38. All high-voltage electrical equipment will be located inside of fences or enclosures and will be clearly marked as energized and dangerous.

39. Prior to construction, the Project will coordinate with all participating landowners as to prudent and safe methods of farming and ranching during the construction and operation of the Project.

40. Prior to construction, the Project will reach out to oil and gas and other mining companies in the area in order to address the placement of any wind energy facilities near any existing or proposed oil and gas or mining facilities. Initial conversations have already taken place with the primary oil and gas companies who are active in the Project area.

41. Prior to Construction, the Project will call “One Call of Wyoming” to identify any local utilities and other buried items prior to beginning excavation activities in order to ensure that all appropriate avoidance measures are taken.

42. In the design and layout of the Project, setback standards approved by Uinta County will be implemented, in addition to other setback standards that the Project believes are appropriate and prudent for the safety of underlying participating landowners, nearby non-participating landowners, nearby residents, regular occupants of the land, and general public.

**N. Description of the Real Property, Fuel and Water Requirements, Including Any Source of Water Along which the Major Utility Facility will be Constructed or From Which it will Obtain or Return Water (Section 21(c)(ii)(E)).**

43. The primary sources of water consumption during construction will be to make concrete and to control dust on the roads. The amount of water needed for dust control is largely dependent on weather conditions during construction and dust standards agreed to with Uinta County staff prior to construction. During operations, the only primary uses of water will be a bathroom facility at the Operations and Maintenance (“O&M”) building, as well as occasional wind turbine blade cleaning and dust control, as needed. Except for fuel for construction and personal vehicles, fuel is not expected to be needed for the construction or operation of the Project.

**O. Acquisition Status, Source and Location of Real Property, Right-of-Way, Fuel and Water Requirements (Section 21(c)(ii)(F)).**

44. **Site Control for Real Property**. The process of negotiating for site control began in 2015, and the first wind energy lease agreements were signed in January 2016. All of the land needed is now signed under a long-term form of agreement, as detailed in Highly Confidential Exhibit RMP\_\_\_(CAT-4SD-5). The recordable lease memorandum forms also are provided in Highly Confidential Exhibit RMP\_\_\_(CAT-4SD-5). The Project continues to negotiate with additional landowners that are desired, though not required.

45. All of the land needed for the Project is either private or state land, with no federal or tribal land needed, and it is already secured. The total leased area is approximately 30,003 acres.

46. **Rights of Way.** The Project area is proposed to be accessed off of existing privately owned roads that are regularly used for heavy haul and industrial traffic associated with existing oil and gas facilities. Rights-of-way may be needed along these roads; this matter is currently being explored by Invenergy.

47. **Fuel.** Except for fuel for construction and personal vehicles, fuel is not expected to be needed for the construction or operation of the Project. The source and location of this fuel will be identified by the construction company and operation and maintenance staff ultimately selected to build and operate the Project. Acquisition has not yet begun.

48. **Water.** There is almost zero water consumption associated with the operation of a wind project. The primary sources of water consumption during construction will be to make concrete and to control dust on the roads. The amount of water needed for dust control is largely dependent on weather conditions during construction and dust standards agreed to with Uinta County staff prior to construction. During operations, the only primary uses of water will be a bathroom facility at the O&M building, as well as occasional wind turbine blade cleaning and dust control, as needed. The source and location of the water needed will be identified by the construction company and operation and maintenance staff ultimately selected to build and operate the Project. Acquisition has not yet begun.

**P. Proposed Means of Transporting Fuel and Water Requirements (Section 21(c)(ii)(G)).**

49. As for transportation of fuel and water, the only fuel requirements expected for the Project are for construction vehicles and personal vehicles for construction and operations. One or more fuel tanks are likely to be delivered to the Project site by way of a tanker truck and stored at a convenient location for construction and O&M crews, likely at a laydown yard. The delivery means for the water to the site are expected to be coordinated by the construction and O&M personnel who will be hired for the Project, but the water is likely to be delivered by way of tanker trucks.

50. The proposed facility does not require the transportation of significant amounts of fuel or water once operational.

**Q. Description of All Mineral Rights Associated with the Facility and Plans for Addressing Any Split-Estate Issues (Section 21(c)(ii)(H)).**

51. The Project and associated facilities are not proposed to own or use any associated mineral rights, except for surface and near-surface rock and soils to provide stability for the wind turbine foundations, and except for gravel, sand, and other aggregate materials for the construction of roads, crane pads, laydown yards, and other civil works. The use of these materials will not unreasonably impede the ability of any mineral rights owner or mineral lessee to access or extract minerals from the Project area. The Project plans to approach any active minerals extraction

company with operating facilities, permits secured, or planned activities to offer a Surface Use Agreement, which would detail the manner in which both the Wind Project and the subject minerals activity could coexist in the same general area and jointly use the surface of the land. Initial discussions with one such company have already begun.

Maps from the Interactive Data Platform issued by the University of Wyoming's Enhanced Oil Recovery Institute (EORI) are available in Confidential Exhibit RMP\_\_\_(CAT-4SD-3). The maps show information for any Oil and Gas Commission Permits, Conventional sites, Coal Bed sites, Injection Wells, Disposal Wells, Units, Horizontal sites, and Water Analysis are included. As shown, there extensive oil and gas infrastructure existing in the Project area. Project layouts and designs are avoiding these areas as appropriate.

**R. Statement Setting Forth the Need for the Facility in Meeting Present and Future Demands for Service in Wyoming or Other States (Section 21(c)(ii)(J)).**

52. The need for the general wind energy and transmission investments envisioned to meet present and future demands is described in Mr. Link's testimony filed with the Original CPCN Application.

**S. Description of the Commodity or Service the Facility will Make Available (Section 21(c)(ii)(K)).**

53. The Project and all of the proposed facilities will enhance the Company's ability to provide cost-effective retail electric service to customers in Wyoming, and the other five states in which the Company provides retail service.

**T. Statement of the Facility's Effect on the Applicant's and Other Systems' Stability and Reliability (Section 21(c)(ii)(L)).**

54. Prior to being allowed to interconnect to the grid, the Project must complete a series of interconnection studies and execute a Large Generator Interconnection Agreement ("LGIA") with PacifiCorp, which operates the transmission system in the Project area. The PacifiCorp pro forma LGIA is part of its FERC Approved Open Access Transmission Tariff ("OATT"). The studies will ensure that interconnection of the Project will not cause system reliability to fall below the applicable standards or tolerances. This is the same process required for all new commercial-scale electricity generation facilities intending to interconnect to the Company's transmission system. The interconnection studies will be performed by engineers employed or contracted by the Company, in accordance with the Company's protocols.

55. The studies include a Feasibility Study, System Impact Study, and Facilities Study. The Feasibility Study identifies the basic thermal impacts of interconnecting the Project to the grid. The System Impact Study assesses and identifies system constraints, transient instabilities, and equipment that would become over-stressed due to interconnecting the proposed generation to the transmission system. The System Impact Study includes dynamic stability and short-circuit analyses and is intended to identify new transmission system facilities required to accommodate the injection of additional power into the grid. The System Impact Study is performed in a cluster

fashion, with the report addressing multiple proposed generation facilities requesting interconnection service. The Facilities Study report will be specific to the individual new generation facility, in this case the proposed Project. New generation facilities must meet or exceed the minimum Western Electricity Coordinating Council (“WECC”), North American Electric Reliability Corporation (“NERC”), and the Company’s own performance, design, and reliability standards, and the facilities identified in the Facilities Study report will ensure that proper operation of the proposed generation will not diminish grid reliability outside of allowable limits.

56. The Facilities Study will provide a list of all the major equipment required in order to allow the new generation facility to safely interconnect to the transmission system, along with its required configuration. Some of this equipment will be placed at the proposed point of interconnection, and it is possible that additional equipment will be required to be installed at other transmission facilities, outside of the transmission area of consideration, as required by project-specific or regional upgrades identified by PacifiCorp. Depending on the outcome of PacifiCorp’s studies and the final point of interconnection, improvements to the Shirley Basin Substation may include transformers, switches, busses, circuit breakers, relays, meters, lightning protection, fencing, ground grids, communications equipment, a control building, and other minor equipment typically associated with electrical transmission-level substations.

57. The results of PacifiCorp’s studies will allow the Project to proceed to final design and micro-siting of the generation tie-line, step-up substation(s), and any improvements to the existing PacifiCorp or other transmission infrastructure. The Project’s Large Generator Interconnection Request Queue numbers of #Q0715 and #Q0810 were filed in 2015 and 2016 respectively. The Project is currently in the Facilities Study and System Impact Study respectively.

**U. Status of Satisfying Local, State, Tribal, or Federal Governmental Agency Requirements (Section 21(c)(ii)(M)).**

58. Confidential Exhibit RMP\_\_\_(CAT-4SD-8) describes the status of local, state, tribal, and federal permitting requirements and status for the wind and transmission facilities.

The following documents included in Exhibit RMP\_\_(CAT-4SD) are confidential or highly confidential in their entirety:

Confidential Exhibit RMP (CAT 4SD-1)	Uinta Project Details and Facilities Proposed to be Constructed
Confidential Exhibit RMP (CAT 4SD-1-A)	Uinta Preliminary Site Layout
Confidential Exhibit RMP (CAT 4SD-1-D)	Uinta Preliminary One-Line Diagram
Confidential Exhibit RMP (CAT 4SD-1-E)	Uinta Wetlands and Surface Water
Confidential Exhibit RMP (CAT 4SD-2)	Uinta Site Description
Confidential Exhibit RMP (CAT 4SD-2-A)	Uinta Preliminary Metes and Bounds Description
Confidential Exhibit RMP (CAT 4SD-3)	Uinta Geology
Confidential Exhibit RMP (CAT 4SD-3-A)	Uinta Vicinity Topography
Confidential Exhibit RMP (CAT 4SD-3-B)	Uinta Groundwater
Confidential Exhibit RMP (CAT 4SD-3-C)	Uinta Surficial Geology
Confidential Exhibit RMP (CAT 4SD-3-D)	Uinta Bedrock Geology
Confidential Exhibit RMP (CAT 4SD-3-E)	Uinta Mineral Deposits
Confidential Exhibit RMP (CAT 4SD-4)	Uinta Natural Resources
Confidential Exhibit RMP (CAT 4SD-4-A)	Uinta Visual Resources Map
Confidential Exhibit RMP (CAT 4SD-4-B)	Uinta Visual Simulations
Confidential Exhibit RMP (CAT 4SD-4-C)	Uinta Regional Summary
Confidential Exhibit RMP (CAT 4SD-4-H)	Uinta Studies Status
Confidential Exhibit RMP (CAT 4SD-4-I)	Uinta Environmental Studies
Highly Confidential Exhibit RMP (CAT 4SD-5)	Uinta Property Acquisition Status
Confidential Exhibit RMP (CAT 4SD-5-B)	Landowner Map
Confidential Exhibit RMP (CAT 4SD-6)	Uinta Preliminary Construction Schedule

Confidential Exhibit RMP (CAT 4SD-7)	Uinta Site Wind Resource Data
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The confidential exhibits listed above are provided under separate cover.

The highly confidential exhibits listed above contain commercially sensitive information which is considered business confidential information. The Company requests special handling. Please contact Stacy Splittstoesser (307) 632-2677 to make arrangements to review.