

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Rugby Wind LLC
Rugby Wind Farm – Pierce County
Siting Application**

Case No. PU-23-313

ORDER

March 27, 2024

Preliminary Statement

On October 3, 2005, in Case No. PU-05-47, the Public Service Commission (Commission) issued its Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility No. 5 to PPM Energy, Inc. authorizing the construction of an up to 150 MW Rugby Wind Farm (Project) in Pierce County, North Dakota.

On December 3, 2008, in Case No. PU-05-47, the Commission adopted an Order reissuing Certificate of Site Compatibility No. 5 to Rugby Wind, LLC (Rugby).

On September 20, 2023, in Case No. PU-23-313, Rugby filed an application to amend the First Reissued Certificate of Site Compatibility No. 5 to repower up to 71 existing 2.1 MW Suzlon turbines replacing the 88-meter rotor diameter blades, hubs, and gearboxes with 2.2 MW turbines with 120-meter rotor diameter blades, hubs and gearboxes increasing the height from 407 feet up to 480 feet (Upgrade Project).

On October 11, 2023, the Commission issued a Notice of Filing and Notice of Opportunity for Hearing, requesting comments and requests for hearing by November 24, 2023. The Notice identified the following issues to be considered:

1. Will the location, construction, and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On November 6, 2023, the North Dakota Department Environmental Quality filed comments.

On November 15, 2023, the State Historical Society of North Dakota (SHSND) filed comments.

On November 22, 2023, public comments were received.

On December 1, 2023, Rugby filed supplemental information.

On December 13, 2023, an informal was held and Rugby met with two individuals from the public and staff.

On January 24, 2024, the Commission reissued a Notice of Opportunity for Hearing, requesting comments and requests for hearing by March 8, 2024.

On February 6, 2024, Rugby filed an amended application to amend First Reissued Certificate of Site Compatibility No. 5.

On February 6, 2024, Rugby filed an application to Protect Information pertaining to cultural resource location information.

On February 8, 2024, the North Dakota Department Environmental Quality filed comments.

On February 28, 2024, the SHSND filed comments.

Discussion

1. Rugby is a subsidiary of Avangrid Renewables, LLC, and is authorized to conduct business in the state of North Dakota.
2. Rugby currently owns and operates 71 Suzlon S88 wind turbine generators with a capacity of 2.1 MW each at the Project, a total nameplate capacity of 149.1 MW.
3. Rugby proposes to refurbish up to 71 turbines at the Project by replacing the current 2.1 MW S88 turbine blades (88-meters/288.7 feet rotor diameter), hub, and gearbox with new technology. The Upgrade Project will include new 2.2 MW turbines with 120-meter (393.7 feet) rotor diameter blades, and new hub and gearbox technology. The replacement of the turbine nacelles and rotor blades will require a tower adapter section that will allow the existing tower infrastructure to join with the proposed equipment. Therefore, the existing 79-meter (259-foot) rotor hub height of each tower will increase up to approximately 85-meters (278 feet).
4. The Upgrade Project's total nameplate generating capacity will increase up to 156.2 MW. Rugby will limit the output at the point of interconnection to 147 MW in

accordance with its Generator Interconnection Agreement with Otter Tail Power Company.

5. To accommodate the increase in nameplate capacity, Rugby requests that the Commission amend the Commission's 2005 Order (Case No. PU-05-47) and the Commission's 2008 First Reissued Certificate of Site Compatibility No. 5 to remove the 1.5 MW to 3 MW per turbine megawatt limitation and the 150 MW nameplate limitation.
6. All 71 of the turbines will reuse the existing 79-meter (259.2 feet) structural steel towers and no turbine locations will change. Rugby plans to use existing turbine foundations (with reinforcement, if needed), collection and communications systems (with upgrades, as needed), permanent access roads, and Project substation.
7. During installation of the upgraded equipment, existing access roads will be temporarily widened to accommodate delivery and staging of components and equipment. Temporary crane paths may also be needed to facilitate equipment removal and installation. A temporary laydown yard and staging area will also be used during installation. Construction activities are expected to occur within areas previously disturbed by initial construction. Temporarily impacted areas will be restored in compliance with applicable provisions of the Commission's 2005 Order (Case No. PU-05-47).
8. Due to the increased blade length, the total turbine tip height would be up to 146-meters (480 feet). Rugby has evaluated the regulatory compliance and environmental impacts at this height.
9. The Upgrade Project activities will occur wholly within the site designated by the Commission for the Project.
10. One turbine (Turbine Q3) did not meet the current Exclusion Area of one and one-tenth the height of the turbine from the property line of a nonparticipating landowner. Rugby has obtained a waiver from the affected landowner and requests the Commission grant a variance of the nonparticipating property line setback for this turbine. No other parties with associated wind rights were identified.
11. Rugby completed an analysis of the Commission's current exclusion area and avoidance area criteria. Turbines A8, Q4, J2, and J3 are located within the setback requirement for roadways set by North Dakota Administrative Code 69-06-08-01. The Pierce County Board of Commissioners acknowledges the variance and has approved the Upgrade Project. The Upgrade Project complies with the siting requirements from the original Pierce County Conditional Use Permit.
12. Rugby has conducted sound assessments using a 2.2 MW turbine with a 120-meter (393.7 feet) rotor diameter and 85-meter hub height. Modeling determined that sound

levels may exceed 45 dBA within 100 feet of nine occupied residences. Rugby has obtained waivers from 8 of the affected residence owners and will obtain a waiver, maintain existing turbines, or operate turbines at a lower electrical and sound output mode for the final residence owner.

13. Rugby conducted a shadow flicker assessment using the 120-meter rotor diameter at the 85-meter hub. With the exception of one occupied residence, shadow flicker levels from the Upgrade Project will not exceed 30 hours per year at occupied residences. Rugby has obtained a waiver from the affected residence owner.
14. A Class I cultural resources inventory, a Class III cultural resources survey, and consultation with the North Dakota State Historic Preservation Office (SHPO) were conducted for the First Reissued Certificate of Site Compatibility No. 5. Rugby completed a Class I background research review and a Class III archaeological survey for the Upgrade Project in October and November of 2023. If construction impacts areas outside of previously surveyed areas, additional cultural resources survey and consultation with SHPO will be completed prior to any ground disturbance. Rugby will develop an unanticipated discovery plan to be in place should previously unknown resources be discovered and will avoid any resources identified that are eligible or unevaluated for listing on the National Register of Historic Places.
15. Rugby completed a Class II Architecture History Reconnaissance Survey for the Upgrade Project in October 2023. Rugby does not anticipate impacts to architectural resources but will assess any potential impacts and need for mitigation for eligible resources identified in coordination with SHPO.
16. Removed turbine components will be handled, processed, treated, stored, reused, disposed of, or recycled in accordance with pertinent federal, state, and local regulations. The Commission requests to be updated on this process as it occurs.
17. The Upgrade Project is currently operating with an aircraft detection lighting system (ADLS). Subject to Federal Aviation Administration approval, Rugby will continue to operate an ADLS or other technology suitable to the Commission on the Upgrade Project in accordance with N.D.C.C. § 49-22-16.4.
18. Rugby will continue to comply with all applicable conditions and protections in the siting laws and rules and Commission Orders previously issued for the Upgrade Project.
19. The construction, operation, and maintenance of the proposed facilities at the site designated for the Upgrade Project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.
20. The proposed facilities at the site designated for the Upgrade Project are compatible with environmental preservation and the efficient use of resources.

21. The proposed facility locations at the site designated for the Upgrade Project will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.

Having considered this matter, the Commission finds the Commission's 2005 Order (Case No. PU-05-47) and First Reissued Certificate of Site Compatibility No. 5 should be amended to remove the 1.5 MW to 3.0 MW per turbine limitation and the 150 MW nameplate capacity limitation. Therefore, the Commission issues the following:

Order

The Commission Orders:

1. The Commission's 2005 Order (Case No. PU-05-47) is amended to remove the 1.5 MW to 3.0 MW per turbine limitation and the 150 MW nameplate capacity limitation.
2. First Amended First Reissued Certificate of Site Compatibility No. 5 is issued to Rugby Wind, LLC, removing the 1.5 MW to 3.0 MW per turbine limitation and the 150 MW nameplate capacity limitation.
3. Rugby's February 6, 2024, Application for Protection of Information is granted.
4. A variance of the 45 dBA sound limitation is granted conditioned upon Rugby obtaining a waiver, maintaining existing turbines, or operating turbines so that sound does not exceed 45 dBA at the occupied residence without a signed waiver.
5. A variance of the nonparticipating property line exclusion area of one and one-tenth the height of the turbine is granted for Turbine Q3.
6. Rugby must complete an architectural and archaeological survey for the Upgrade Project area as requested by SHPO. Rugby may not begin construction until it obtains and files with the Commission a letter from SHPO concurring that there are no architectural properties or archaeological resources affected by the Upgrade Project.
7. All applicable provisions and requirements in the Commission's 2005 Order and First Reissued Certificate of Site Compatibility No. 5 (Case No. PU-05-47) continue to apply except where amended by this Order.

PUBLIC SERVICE COMMISSION



Sheri Haugen-Hoffart
Commissioner



Randy Christmann
Chair



Julie Fedorchak
Commissioner

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Amended First Reissued Certificate of Site Compatibility Number 5

This is to certify that the North Dakota Public Service Commission has designated an energy conversion facility site for Rugby Wind, LLC. to construct and operate the Rugby Wind Farm comprised of approximately 46,080 acres in Pierce County, North Dakota.

The energy conversion facility site is designated by the Commission's October 3, 2005, Order in Case No. PU-05-47 and the March 27, 2024, Order in Case No. PU-23-313 and is subject to the conditions and limitations in these orders.

Bismarck, North Dakota, March 27, 2024.

ATTEST:

PUBLIC SERVICE COMMISSION



Executive Secretary



Commissioner