

September 8, 2023

**VIA E-MAIL AND FEDERAL EXPRESS**

Mr. Steven Kahl  
Executive Secretary  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

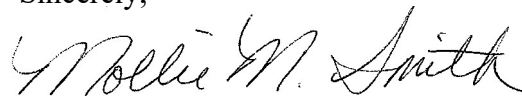
**Re: Otter Tail Power Company  
Ashtabula III Wind Upgrade Project – Barnes Cnty  
Siting Exclusion Certification  
Case No. PU-23-256**

Dear Mr. Kahl:

Enclosed for filing in connection with the above-referenced matter are an original and six (6) copies of a proposed Order, submitted by Otter Tail Power Company.

Electronic copies of the enclosed document and this letter were filed with the Commission today via e-mail. If you have any questions, please let me know.

Sincerely,



MOLLIE M. SMITH

MMS/80133607  
Enclosures

cc: Lisa McFarland (w/ enclosures, via e-mail)  
Bryce Haugen (w/ enclosures, via e-mail)

**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**Otter Tail Power Company**  
**Ashtabula III Wind Upgrade Project - Barnes Cnty**  
**Siting Exclusion Application**

**Case No. PU-23-256**

**ORDER**

\_\_\_\_\_, 2023

**Preliminary Statement**

On August 4, 2010, in Case No. PU-10-147, the Commission issued its Findings of Fact, Conclusions of Law and Order, issuing Certificate of Site Compatibility Number 17 to Ashtabula Wind III, LLC, authorizing the construction of an up to 69 MW energy conversion facility known as the Ashtabula III Wind Energy Center in Barnes County, North Dakota (Project).

On August 17, 2022, in Case No. PU-22-195, the Commission issued its Order approving a request to transfer the Project to Otter Tail Power Company (OTP), and issuing First Reissued Certificate of Site Compatibility Number 17 to OTP.

On June 29, 2023, OTP filed the Certification of Timothy J. Rogelstad, with accompanying documentation, pursuant to N.D.C.C. § 49-22-03(3)(a)(4) regarding plans to improve the turbines operating at the Project by replacing the 39 existing 1.6 MW General Electric (GE) 82.5-meter rotor diameter blades, hubs, and gearboxes with upgraded 1.6 MW GE generator technology and 91-meter rotor diameter blades, hubs, and gearboxes (Upgrade Project). The filing included a request for variances from the following Exclusion Area requirements: (1) one and one-tenth the height of the turbine from the property line of a nonparticipating landowner for four turbines, subject to OTP filing waivers executed by the affected nonparticipating landowners; and (2) one and one-tenth the height of the turbine plus 75 feet from the centerline of a local roadway for three turbines, subject to obtaining approval from Barnes County.

On June 29, 2023, OTP also filed an Application for Protection of Information regarding cultural resource location information.

On August 2, 2023, the Commission issued a Notice of Opportunity for Hearing, requesting comments and requests for hearing by September 15, 2023. The Notice identified the following issues to be considered:

1. Will the location, construction, and operation of the proposed facility produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Is the proposed facility compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed facility location 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 August 18, 2023, the State Historical Society of North Dakota (SHSND) filed comments.

On August 21, 2023, the North Dakota Department Environmental Quality filed comments.

On September 6, 2023, the Commission held an Informal Hearing to discuss the application with OTP and Commission Staff.

### **Discussion**

1. OTP is a public utility company authorized to conduct business in North Dakota. OTP provides retail electric service in North Dakota.

2. OTP currently owns and operates 39 GE 1.6 MW turbines at the Project, with a nameplate capacity of 62.4 MW.

3. OTP proposes to improve the 39 turbines at the Project by replacing the current GE 1.6 MW turbine blades (82.5 meter/270.7 feet rotor diameter), hub, and gearbox with new technology. The Upgrade Project will include new GE 1.6 MW generator technology and new 91 meter (298.6 feet) rotor diameter blades, hub, and gearbox.

4. The Upgrade Project's total nameplate generating capacity will remain 62.4 MW.

5. All 39 of the turbines will reuse the existing 80 meter (262.5 feet) structural steel towers and existing nacelles, and as a result, turbine locations will not change. OTP plans to use the existing turbine foundations (with reinforcement, if needed), collection and communications systems, and permanent access roads. Other associated facilities will remain unchanged.

6. Due to the increased blade length, the total turbine tip height would be 125.5 meters (411.8 feet).

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 will also be used during installation. All 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 2010 Order (Case No. PU-10-147).

8. The Upgrade Project activities will occur wholly within the site designated by the Commission for the Project in the Commission's 2010 Order (Case No. PU-10-147).

9. OTP conducted a new sound assessment using a 1.6 MW turbine with a 91 meter rotor diameter and 80 meter hub height. Modeling determined that sound levels may exceed 45 dBA within 100 feet of six occupied residences. OTP has obtained and filed with the Commission copies of waivers from the owners of three of the affected residences. With respect to the remaining three residences with modeled sound levels above 45 dBA within 100 feet, OTP will either obtain a waiver from the owner(s) of each residence or install noise-reduction technology, such as noise-reducing operating modes (NRO) and/or low-noise trailing edge (LNTE) blades as needed. Accordingly, sound levels within 100 feet of an inhabited residence or community building will not exceed 45 dBA, unless waived in writing by the owner of such residence or building.

10. OTP conducted a new shadow flicker assessment using the 91 meter rotor diameter at the 80 meter hub height. With the exception of one residence, shadow flicker levels from the Upgrade Project will not exceed 30 hours per year at occupied residences. For the one residence modeled at over 30 hours of shadow flicker per year, OTP will either obtain a waiver from the residence owner or utilize shadow flicker mitigating technology to reduce shadow flicker levels to 30 hours per year at the residence.

11. OTP has coordinated with the SHSND. Because the Upgrade Project activities will occur primarily within areas previously surveyed for cultural resources, and all activities will occur within areas previously disturbed by initial construction, additional cultural resource surveys are not necessary, except to the extent crane paths are located in previously unsurveyed areas. This is consistent with the recommendations by the SHSND regarding OTP's Langdon Wind Energy Center Upgrade Project.<sup>1</sup> If any crane paths are located outside of areas previously surveyed for cultural resources, OTP will complete cultural resource field surveys and will avoid any resources identified that are eligible or unevaluated for listing on the National Register of Historic Places (NRHP). The Upgrade Project will not impact cultural resources.

12. Based on recommendations from the SHSND, OTP will complete an architectural history survey for the area between the one-mile and two-mile radius of individual turbine locations.

13. OTP provided information regarding its plan for disposal of turbine components removed in connection with the Upgrade Project. Once removed, the existing

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<sup>1</sup> See OTP's Certification of Bradley E. Tollerson, *Amend – Langdon Wind Energy Center Upgrade Project, Siting Application – Cavalier County* (Case No. PU-23-086).

blades will be transported to a facility for repurposing, with no blades deposited in a landfill.

14. The Commission's 2010 Order (Case No. PU-10-147) predates the Commission's current wind facility setback rules.

15. Four turbines do not meet the current Exclusion Area of one and one-tenth the height of the turbine from the property line of a nonparticipating landowner. OTP plans to obtain written waivers from the affected nonparticipating landowners. OTP requests that the Commission grant a variance conditioned upon submission of the landowner waivers. If any landowner is not willing to grant a waiver, OTP will not upgrade equipment at the affected turbine.

16. Three turbines do not meet the current Exclusion Area of one and one-tenth the height of the turbine plus 75 feet from the centerline of a local roadway. OTP plans to obtain approval from Barnes County. OTP requests that the Commission grant a variance conditioned upon submission of approval from Barnes County. If Barnes County is not willing to grant approval, OTP will not upgrade equipment at the affected turbines.

17. The Upgrade Project construction will not affect any known Exclusion or Avoidance Areas.

18. The Project is currently operating with an aircraft detection lighting system (ADLS). Subject to Federal Aviation Administration approval, OTP 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.

19. OTP will continue to comply with all applicable conditions and protections in the siting laws and rules and Commission Orders previously issued for the Project.

20. The construction, operation, and maintenance of the proposed facilities at the site designated for the Project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

21. The proposed facilities at the site designated for the Project are compatible with the environmental preservation and the efficient use of resources.

22. The proposed facility locations at the site designated for the 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.

23. The Commission has authority to protect cultural resource location information pursuant to N.D.C.C. § 49-22-26.

Therefore, the Commission issues the following:

**Order**

The Commission Orders:

1. OTP’s Application for Protection of Information is granted.
2. A variance of the nonparticipating property line exclusion area of one and one-tenth the height of the turbine, conditioned upon OTP obtaining and filing with the Commission a copy of a written waiver from the affected landowner(s) prior to any construction activities at those turbines. If any affected landowner is not willing to grant a waiver, OTP will not upgrade equipment at the affected turbine.
3. A variance of the local roadway exclusion area of one and one-tenth the height of the turbine plus 75 feet from the centerline of the roadway is granted, conditioned upon OTP obtaining and filing with the Commission a copy of approval by Barnes County prior to any construction activities at those turbines. If Barnes County is not willing to grant approval, OTP will not upgrade equipment at the affected turbines.
4. OTP will dispose of turbine components in accordance with the disposal plan outlined in Exhibit A to the updated Certification of Timothy G. Rogelstad. If solid waste disposal occurs in North Dakota, it shall be at a disposal facility permitted by the North Dakota Department of Environmental Quality – Division of Waste Management.
5. OTP must complete an architectural survey for the Upgrade Project, as requested by the SHSND. OTP may not begin construction until it obtains and files with the Commission a letter from the SHSND concurring that there are no architectural properties affected by the Upgrade Project or that any impacts have been or will be properly mitigated in consultation with the SHSND.
6. All applicable provisions and requirements in the Commission’s 2010 Order, and Certificate of Site Compatibility No. 17 (Case No. PU-10-147) continue to apply.

**PUBLIC SERVICE COMMISSION**

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**Sheri Haugen-Hoffart**  
**Commissioner**

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**Randy Christmann**  
**Chair**

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**Julie Fedorchak**  
**Commissioner**