

April 18, 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
Amend – Langdon Wind Energy Center Upgrade Project
Siting Application – Cavalier County
Case No. PU-23-86**

Dear Mr. Kahl:

On March 6, 2023 (updated March 7, 2023), Otter Tail Power Company (“Otter Tail”) filed the Certification of Bradley E. Tollerson, with accompanying documentation, pursuant to N.D.C.C. § 49-22-03(3)(a)(4) (“Certification Filing”) regarding planned equipment upgrades (“Upgrade Project”) at the Langdon Wind Energy Center (“Facility”). Since submitting the Certification Filing, Otter Tail has learned of potential changes to the turbine specifications for the Upgrade Project. To ensure the flexibility to implement the potential changes, and ensure the Commission has a complete record, Otter Tail provides additional information and documentation to supplement and support the Certification Filing.

A. Potential Technology Changes.

In the Certification Filing, Otter Tail indicated that it planned to replace the existing GE 1.5 megawatt (“MW”) turbine blades (77 meter/256.6 feet rotor diameter) and other components with an upgraded technology package of GE 1.5 MW turbine blades (97 meter/318.2 feet rotor diameter) and other components. However, GE recently provided Otter Tail with the preliminary results of its technological analysis, which indicate that using 91 meter (298.6 feet) rotor diameter blades and 1.6 MW generator technology may offer more optionality and may enable better, more efficient turbine operations. If a rotor diameter of 91 meters (rather than 97 meters) is used, the total turbine tip height would be 125.5 meters (411.7 feet) (rather than 128.5 meters (421.6 feet)). If the 1.6 MW generator technology is used, the Facility’s total nameplate generating capacity would increase to 43.5 MW; however, the Facility’s output would remain 40.5 MW in accordance with Otter Tail’s Generator Interconnection Agreement.

B. Updated Certification Filing Documentation.

If implemented, the technology changes discussed above would reduce the rotor diameter and overall height of the turbines from what was described in the Certification Filing. As such, the potential changes do not affect the siting compliance analysis provided in the Certification Filing.

That said, to avoid confusion and to ensure a complete record, Otter Tail provides for filing an original and six (6) copies of the following documents:

1. Updated Figures 1-3: The figures submitted with the Certification Filing (including the setback chart in Figure 3) were based on a 97 meter rotor diameter. Although the setbacks in the original filing would also cover a 91 meter rotor diameter, for ease of reference, Otter Tail is providing updated figures specifically for a 91 meter rotor diameter. Note that Figure 1 (Upgrade Project Map) remains the same as previously filed, but is included to provide a complete set of figures for each rotor diameter.
2. Epsilon Associates Inc. (“Epsilon”) Letter: In the Certification Filing, Otter Tail provided sound and shadow flicker modeling reports prepared by Epsilon using a 1.5 MW turbine with a 97 meter rotor diameter and 80 meter hub height. The enclosed letter from Epsilon confirms that the sound and shadow flicker levels for the Upgrade Project using either 1.5 MW or 1.6 MW generator technology with a 91 meter rotor diameter will be the same as or lower than was presented in the sound and shadow flicker reports previously provided. Otter Tail will provide the final updated sound and shadow flicker reports to the Commission prior to construction.

C. Application to Amend.

In addition to the Certification Filing updates discussed above, enclosed for filing are an original and six (6) copies of an Application to Amend Order and Certificate (“Application to Amend”). As discussed in the Application to Amend, the Certificate of Site Compatibility issued to Otter Tail for the Facility, as well as the authorizing order, specifically reference a 40.5 MW Facility. Based on past precedent, Otter Tail understands that an amendment is required to remove the megawatt limitation in order to increase the nameplate capacity of the Facility, even though the output to the grid will remain unchanged. Therefore, Otter Tail submits the Application to Amend requesting removal of the megawatt limitation in the Certificate of Site Compatibility and associated order to accommodate the potential 1.6 MW generator technology

Electronic copies of the enclosed documents 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/78904227
Enclosures

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