

5. Due to the increased blade length, the overall turbine height will increase from 121.25 meters (397.8 feet) to 128.5 meters (421.6 feet).

6. The Facility's total nameplate generating capacity would increase to 52.8 MW; however, the Facility's output would remain 49.5 MW in accordance with Otter Tail's Generator Interconnection Agreement.

7. Otter Tail 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.

8. 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.

9. The Upgrade Project activities are wholly within the site designated by the Commission for the Facility in its October 30, 2008 Findings of Fact, Conclusions of Law and Order (Case No. PU-08-34) (2008 Order)², and are to improve the same type of facility for which Certificate of Site Compatibility No. 9 was issued. *See* N.D.C.C. §§ 49-22-03(3)(a)(1), (3) and (4)(b).

10. Otter Tail has conducted an environmental and regulatory compliance analysis for the Upgrade Project, and an associated report prepared by its environmental consultant, Atwell, LLC (Atwell), is provided as **Exhibit A**. As set forth in **Exhibit A**:

² On December 3, 2008, the Commission issued a Certificate of Public Convenience and Necessity (CPCN) to Otter Tail for the Facility (Case No. PU-08-766). On May 20, 2009, the Commission issued an Order Reissuing Certificate and Permit, authorizing the transfer of the 49.5 MW Facility to Otter Tail, issuing First Reissued Certificate of Site Compatibility No. 9 to Otter Tail for the 49.5 MW Facility (Case No. PU-09-73).

a. **Cultural Resources.** The Upgrade Project construction activities will occur primarily within areas previously surveyed for cultural resources, and all construction activities will occur within areas previously disturbed by initial Facility construction. Based on recommendations made by the State Historical Society of North Dakota (SHSND) for Otter Tail's Langdon Wind Energy Center Upgrade Project (Langdon Upgrade Project), if any Upgrade Project crane paths are located outside of areas previously surveyed for cultural resources, Otter Tail 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). Therefore, no cultural resources will be affected by the Upgrade Project.

b. **Architectural Resources.** Although not recommended at the time the Facility was originally permitted and constructed, in consultations with SHSND for the Langdon Upgrade Project, SHSND recommended completion of an architectural history survey in the vicinity of wind energy generation facilities to identify architectural resources potentially eligible for NRHP-listing and to evaluate potential impact to those resources. As a result, Otter Tail also plans to complete an architectural history survey for this Upgrade Project. Since the Upgrade Project involves technology upgrades to existing turbines, it is not anticipated that the limited modifications will adversely affect architectural history resources. However, in the event of an adverse impact, Otter Tail will coordinate with SHSND to identify appropriate mitigation.

c. **Wetlands.** Wetlands and waterbodies have been identified within the Upgrade Project Area. No permanent wetland impacts will occur as a result of Upgrade Project activities.

d. **Sound.** At Atwell's direction, Epsilon Associates, Inc. (Epsilon) completed a sound analysis for the Upgrade Project with the proposed upgraded technology. At the time the Facility was permitted, the Commission did not have a sound standard for wind energy facilities. The Commission's current sound level requirement is 45 dBA or less within 100 feet of occupied residences and community buildings. With the upgraded equipment, sound levels within 100 feet of five occupied residences were modeled above 45 dBA, while sound levels were at or below 45 dBA within 100 feet of the remaining residences (no community buildings are present). Otter Tail has obtained sound waivers from the owners of two of the residences modeled above the 45 dBA requirement. With respect to the remaining three residences, Otter Tail is pursuing waivers. Additionally, Otter Tail has confirmed that the Upgrade Project is able to comply with the Commission's sound requirement at those three residences by installing noise-reduction technology, such as noise-reducing operation modes (NRO) and/or low noise trailing edge (LNTE) blades at up to eight turbines (as needed).


e. **Shadow Flicker.** Epsilon completed a shadow flicker assessment for the Upgrade Project with the proposed upgraded technology. The Commission does not have a shadow flicker standard, and shadow flicker was not addressed in the Commission's 2008 Order. The shadow flicker assessment demonstrates that shadow flicker levels are not anticipated to exceed 30 hours per year at any occupied residence.

f. **Exclusion and Avoidance Areas.** Otter Tail has analyzed the Upgrade Project's compliance with the Commission's current exclusion area and avoidance area criteria. With the exception of two turbines that are within the non-participating property line exclusion area, the Upgrade Project complies with all exclusion areas. Otter Tail has identified the owners of the properties at issue and is pursuing waivers. Otter Tail requests

that the Commission grant a variance conditioned upon submission of the waivers. If any landowner is not willing to grant a waiver, Otter Tail will not upgrade equipment at the affected turbine. Accordingly, the Upgrade Project will comply with all current exclusion area and avoidance area criteria, and construction activities associated with the Upgrade Project will not affect any known exclusion or avoidance areas within the designated site. See N.D.C.C. §§ 49-22-03(3)(a)(2) and (4)(a).

11. The Facility will continue to comply with all requirements set forth in the Commission's Orders regarding the Facility, including applicable laws and rules designating the site. See N.D.C.C. §§ 49-22-03(3)(a)(1) and (4)(c).

FURTHER AFFIANT SAYETH NOT.



Bradley E. Tollerson

Subscribed and sworn to before me
this 5th day of May 2023.



Notary Public

