

# Reclamation and Revegetation Inspection Report

Emmons-Logan Transmission Line

Emmons-Logan Wind, LLC

ND PSC Case No. PU-18-281

**Prepared for:**

North Dakota Public Service Commission  
Public Utilities Division  
State Capitol  
600 East Boulevard – Dept. 408  
Bismarck, ND 58505-0480



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## Executive Summary

The State of North Dakota, acting through its North Dakota Public Service Commission (Commission), Division of Public Utilities, has contracted Keitu Engineers & Consultants, Inc. (Keitu) to perform consulting services for a Reclamation and Revegetation Inspection. This report addresses the Orders established by the Commission and issues established in Case No. PU-18-281.

The Emmons-Logan 230 kV Transmission Line (Project) conveys power from the Emmons-Logan Wind Energy Center (Wind Energy Center) to the interconnection point at the existing 230 kV Heskett-Wishek transmission line. The Project is located in Emmons County, North Dakota approximately 40 miles southeast of Bismarck, North Dakota and 8 miles southwest of Napoleon, North Dakota. The Project is located in a rural area primarily used for agricultural purposes.

The Project is an approximately 6.85-mile-long 230 kV overhead transmission line in Emmons County, North Dakota. The Project Route consisting of a 150-foot wide right-of-way (ROW) encompasses approximately 124.5 acres. The Project is wholly within the Wind Energy Center boundary. It begins with a connection to the Wind Energy Center collection substation and terminates where it connects with the existing 230 kV Heskett-Wishek transmission line. The Project conveys 200 MW from the 102 turbines to the 230 kV Heskett-Wishek transmission line.

The site was visually inspected on September 26, 2023 by Keitu staff. It appears to be returned as near as practical to preconstruction conditions at the time of visit.

Overall, the project was very well-maintained, secured, and in good condition and is as near as practical to pre-construction conditions.

## Introduction

The Project was approved in February, 2019 and construction began in May, 2019. Construction for the Project was completed in November, 2019. The Project is operated by Emmons-Logan Wind, LLC. Emmons-Logan Wind, LLC is a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC. The project consists of approximately 6.85 miles of 230 kV overhead electric transmission line and associated facilities in Emmons County, North Dakota. The Project originates at the Wind Energy Center substation and terminates at the interconnection to the Montana Dakota Utilities 230 kV Heskett-Wishek transmission line. The Project was built in conjunction with the Wind Energy Center which is also operated by Emmons-Logan, LLC. Emmons-Logan, LLC submitted a separate Certificate of Corridor Compatibility application for the Wind Energy Center.

The transmission line was constructed using steel monopole structures. The average height of the single pole structures range from 90 feet to 120 feet. Each monopole structure is directly embedded into the ground, with an overall foundation diameter of approximately six feet and an embedded length of approximately 15-20 feet. The pole locations are approximately 950 feet apart. Guyed structures in three locations consist of up to eight guy wires per structure, each up to 25 feet from the pole structure.

The Project is under the jurisdiction of the North Dakota Public Service Commission, which issued its Route Permit No. 218 and Certificate of Corridor Compatibility No. 208 for Case No. PU-18-281 on February 6, 2019.

## Purpose and Scope of Inspection

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and welfare of the citizens of North Dakota. Construction Inspections ensure the Project is constructed in compliance with siting laws, rules, and the applicable Commission Order Amending Certificate and Permit (Order).

The Commission retained Keitu Engineers & Consultants, Inc. (Keitu) to complete a Reclamation and Revegetation Inspection of the Project. The inspection process included a review of the Consolidated Application for Certificate of Corridor Compatibility and Route Permit (Application), Order, Certification Relating to Order Provisions (Certification), and other applicable documents to determine Project-specific siting and construction requirements; a site visit and inspection of facilities; documentation of compliance; and a report summarizing findings. This report includes, but is not limited to, site visit observations, documentation of compliance deficiencies, and a summary site conditions.

## Methods

Keitu reviewed North Dakota siting laws and rules, the Application, Certification, and the Order for the Project to identify what Project-specific documentation was required for compliance. Keitu then reviewed Project documents in the PSC Online Case Search to identify those siting laws, rules, and Application and Order assertions that already had written verification, those that still required documentation, and those that required physical site verification.

Keitu Staff visited the Project area on September 26, 2023 to visually inspect the site. Digital photographs were taken showing typical Project infrastructure. The Project was in operation at the time of visit.

## As-Built Inspection Follow-Up

An As-Built inspection was conducted on March 5, 2021 by Keitu Staff. During this inspection it was deemed by Keitu staff that the Project was constructed in compliance with the siting laws, siting rules, and applicable Commission Orders.

## Observations

Project areas occurring in crop lands appeared to be returned to pre-construction conditions at the time of visit. Crop density appeared to be similar to areas adjacent to the Project area. Portions of the Project occurring in range or pasture land had approximately 80-100% ground cover. The disturbed areas appeared to be stabilized.

## Recommendations

1. Continual maintenance should be done to encourage the revegetation of desirable species.

## Conclusion

Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding environment. The Project site is in good condition and is well maintained. The Project's ground cover is as near as practical to preconstruction conditions.

## Management Review

The services performed by Keitu and its staff for this project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by professionals currently practicing in this area under similar time and budget constraints.

Recommendations and findings contained in this report represent our professional judgment and are based upon available information and technically accepted practices at the present time and location. Other than this, no warranty is implied or expressed.



10/26/2023

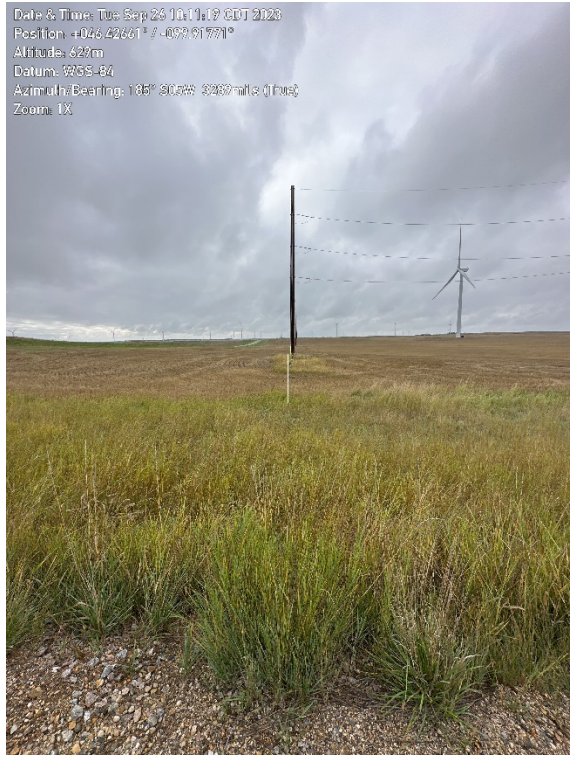
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Jaimee Antognazzi, Operations Manager

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Date

**Report Photo #1: North End of Line**



**Report Photo #2: Line Running South**



**Report Photo #3: Turning Point West**



**Report Photo #4: West End of Line**



**Project Photo Location Map:**

