As-Built Inspection Report

Oliver Wind III 230 kV Transmission Line – Morton and Oliver Counties

NextEra Energy Resources, LLC

ND PSC Case No. PU-16-122

Prepared for:

North Dakota Public Service Commission
Public Utilities Division
State Capitol
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Bismarck, ND 58505-0480

KEITU
ENGINEERS & CONSULTANTS, INC.

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Table of Contents

EXECUTIVE SUMMARY 1
INTRODUCTION 2
PURPOSE AND SCOPE OF INSPECTION 2
ORDERS 3
CERTIFICATION 4
CONCLUSION 8

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 as-built siting inspections. This report addresses the Orders established by the Commission and issues established in Case No. PU-16-122.

The Oliver Wind III 230 kV Transmission Line is located in Morton and Oliver Counties, North Dakota. The project consists of approximately 4.5 miles of a new 230 kilovolt (kV) overhead transmission line on private property in Morton and Oliver counties and is owned and operated by NextEra Energy Resources, LLC. Construction for the Project began in July 2016 and was completed in December 2017. The purpose of the construction inspection was to ensure the Project was constructed in compliance with the siting laws, rules, and the applicable Commission Order for the Project. Prior to the construction inspection, Keitu reviewed all Project documents to identify any and all aspects requiring site verification.

The site was visually inspected on April 17, 2017 by Keitu staff. Overall, the project was very well-maintained, secured, and in good condition. It appeared to be constructed as planned with numerous efforts to minimize impacts.

In Keitu's opinion, Certification #28, Certification #14, and Order #4 is complete contingent on documents being supplied to the Commission upon request.

Introduction

The Oliver Wind III Farm (Project) was approved and constructed in 2016-2017. The Project is operated by a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER). The Project consists of approximately 4.5 miles of a new 230 kilovolt (kV) overhead transmission line on private property in Morton and Oliver counties, North Dakota. The project also includes a new 5-acre switchyard (Minnkota switchyard) that was constructed at the northern terminus of the transmission line. The project will connect the Oliver III Wind Energy Center to the electrical grid via a tap to the existing Minnkota Power Cooperative, Inc. (Minnkota) Center to Mandan 230 kV Overhead Transmission Line. The project is under the jurisdiction of the North Dakota Public Service Commission (Commission), which issued its Order Amending Certificate and Permit for Case No. PU-16-122 on June 22, 2016.

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 an as-built construction inspection of the Project. The inspection process included a review of the Application for Amended Corridor Certificate 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 of issues that should be addressed for the Project to be considered complete and in full compliance.

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 Commission 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.

Robert McKeehen, a Keitu Staff Consultant, visited the Project area on April 17, 2017 to visually inspect the site. Digital photographs were taken showing typical Project infrastructure and documenting any problem areas. During the field visit, the transmission line and substation was

in operation. The site was gated with a chain-link fence. Stormwater prevention BMPs (silt fences) appeared to have been installed and were operating correctly.

Orders

The following section includes discussion of relevant items included in the Findings of Fact, Conclusions of Law and Order (Docket Item 84 in Case No. PU-16-122). The following section includes a discussion of a list of components of the Project that were asserted in the Order which could be documented during the as-built inspection to verify compliance with siting laws, rules and the Order for the Project, via either written documentation or physical site verification. Included are detailed findings and observations from the Keitu personnel involved in the as-built inspection for the Project.

1. **(Order #2) Certificate of Corridor Compatibility No. 189 is issued to Oliver Wind III, LLC designating a corridor for the construction, operation, and maintenance of the proposed 230 kV transmission line, switchyard and associated facilities in Morton and Oliver Counties, North Dakota, as identified in Figure 2 of Hearing Exhibit No. 2. For purposes of the certificate, the Corridor is an area 150-foot wide centered on the route designated in this order.**

   In March 2016 (Exhibit 2, Docket Item 48) a Consolidated Application for Certificate of Corridor Compatibility and Rout permit was issued for the Oliver Wind III, 230 kV transmission line, switchyard and associated facilities in Morton and Oliver Counties, North Dakota.

   Order #2 was followed.

2. **(Order #4) The May 27, 2016 Certification Relating to Order Provisions – Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications is incorporated by reference and attached to this Order.**

   No evidence of a tree and shrub inventory or records were found during the search of project files at this time. No evidence of tree or shrub removal was noted on construction inspections or Oliver Wind III, LLC submitted reports.

Order #4 is deemed incomplete until documentation can be provided to the Commission stating if trees and shrubs were removed during construction (Tree and Shrub Mitigation Specifications Item #15) to comply with conditions and limitations stated in the Findings of Fact, Conclusions of Low and Order dated June 22, 2016, Case No. PU-16-122.

3. **(Order #6) Oliver Wind III is required to comply with the applicable laws, rules and, or regulations in the event it desires to construct another or a different transmission facility than was specified in the application within the corridor granted in this proceeding.**

Oliver wind III complied with all applicable laws, rules and, or regulations during construction and did not construct or desire to construct another or a different transmission facility other than was specified in the application within the corridor granted in this proceeding.

Order #6 was followed.

4. **(Order #7) Oliver Wind III is required to comply with all applicable laws, rules and regulations of all other agencies having jurisdiction over any phase of the proposed Project.**

On March 2016 NEER provided the consolidated application to the Commission (Docket Item 48) prepared by Tetra Tech. In this report, many State and Federal agencies including but not limited to; U.S. Fish and Wildlife Service, North Dakota Game and Fish Department, U.S. Army Corps of Engineers, State Historical Society of North Dakota, North Dakota Parks and Recreation Department, North Dakota Department of Health, North Dakota State Water Commission and North Dakota Aeronautics Commission were consulted in regards to the project.

Order #7 is complete.

5. **(Order #8) Prior to commencing construction of any phase of the proposed Project, Oliver Wind III shall obtain all other necessary license and permits for construction of such phase, and provide copies to the Commission prior to construction of each phase.**

On April 29, 2016 an application for building permit of a substation, operation and maintenance building was signed by a county official (Docket item 91). On May 20, 2016 Andrew Erickson a representative from the Southwest Pipeline Project (SWPP) signed a crossing permit stating that the Southwest Water Authority gave approval to NEER to cross the SWPP pipeline easement for the Oliver Wind Project (Docket Item 91).

Order #8 was followed.

Certification

The following section includes discussion of relevant items included in the Findings of Fact, Conclusions of Law and Order (Docket Item 84 in Case No. PU-16-122). This Certification was also reviewed with Oliver Wind III, LLC and a Commission representative during the preconstruction conference. As noted in the preconstruction conference, not all original 34 certification points are relevant to the Oliver Wind III, 230 kV Transmission Line Project.

1. **(Certification #1) Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company**

shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.

On May 27, 2016 Vice President of Oliver Wind III, LLC Brian Tobin signed the certification relating to order provisions transmission facility siting.

Certification #1 was followed.

2. **(Certification #4) Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission's order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.**

On June 22, 2016, in Case Number PU-16-122, the North Dakota Public Service Commission issued Certificate of Site Compatibility for a Transmission Facility Corridor No. 189 and Route Permit No. 201 to Oliver Wind III for approximately 9.5 miles of 230 kV electric Transmission line and associated facilities to be located in Morton and Oliver counties, North Dakota (Docket Item 84).

Certification #4 was followed.

3. **(Certification #5) Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.**

Oliver Wind III, LLC filed weekly progress reports to the Commission. These progress reports included the NEER plan of the week, construction status, receiving status and building approach. Progress reports were filed August 7, 2016 to January 15, 2017.

Certification #5 was followed.

6. **(Certification #6) Company understands and agrees that the authorizations granted by any Certificate of Corridor Compatibility or Route Permit issued by the Commission for the Transmission facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment.**

A review of the project files did not indicate that any authorizations granted by Certificate of Corridor Compatibility or Route Permit for the Transmission facility were modified by the Commission to date.

Certification #6 was followed.

7. **(Certification #9) Company understands and agrees that topsoil removal will begin when the Commission's third-party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference.**

On July 7, 2016 Chairman Julie Fedorchak, Commissioner Randy Christmann and Commissioner Brian P. Kalk signed a contract for Keitu Engineers & Consultants, Inc. to preform construction inspections on the Oliver III 230 kV Transmission Line. On July 14, 2016 Heather J Miller from Keitu Engineers & Consultants, Inc. was on site at the start of construction to perform a topsoil inspection. The inspection focused on confirming surface disturbance/work occurring within the Commission-approved work corridor and/or route, topsoil segregation and that vegetation removal was consistent with tree and shrub mitigation plan, if applicable.

Certification #9 was followed.

8. **(Certification #14) Company Understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society.**

On January 20, 2016 the State Historical Society recommended a Class I and Class III survey be conducted by a permitted architectural historian on the project area. On January 5, 2011 the State Historical Society of North Dakota submitted a Class III cultural Resource Inventory and found "No Historic Properties Affected" and "No Significant Sites". No records of a Class I survey were found in the project dockets.

Certification #14 is deemed incomplete until Class I documentation can be provided to the Commission to comply with conditions and limitations stated in the Findings of Fact, Conclusions of Law and Order dated June 22, 2016, Case No. PU-16-122.

9. **(Certification #17) Company understands and agrees that it shall, as soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior of the beginning of construction.**

At the time of the post construction inspection, Keitu staff noted that Oliver Wind III crew was finished replacing topsoil on the disturbed areas and was waiting for correct conditions to begin seeding the disturbed areas. As observed and recorded in the report photos, Oliver Wind III crew has done an adequate job at reducing impacts to the area affected by the

construction activities by reducing surface disturbance, accurately separating topsoil and using straw wattles and silt fences to protect soil erosion and runoff.

Certification #17 is complete contingent that reseeding is to be done, according to the Natural Resources conservation Service recommendations, by Oliver Wind III.

10. **(Certification #25) Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.**

During the as built construction inspection, Keitu staff did not note any trash or debris related to the construction of the Oliver Wind III 230 kV Transmission Line on or near the construction area. Trash dumpsters are located on the substation parking lot.

Certification #25 was followed.

11. **(Certification #28) Company understands and agrees that, prior to beginning construction of the transmission facility at a location, it shall send a letter to each landowner with whom an easement was executed for that location specifying the name and phone number of the company representative who is responsible for receiving and resolving landowner issues for the life of the easement.**

A review of project files did not indicate that letters were distributed to landowners. It is possible this information was not made available to the public.

In Keitu's opinion Certification #28 is complete contingent on documents being supplied to the Commission upon request.

12. **(Certification #33) Company agrees to provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design specification for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.**

Oliver Wind III, LLC submitted as built survey maps to the commission on January 11, 2017. According to NEER weekly progress reports, The Oliver Wind III 230 kV Transmission Line was completed the week of November 27, 2016. The as built survey maps were submitted within the three month time frame (Docket Item 132). These maps can be accurately show the location of the transmission facility as built in compliance with certification #33.

Certification #33 was followed.

Conclusion

Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding environment. The Project site was in good condition and well maintained.

In Keitu's opinion, Certification #28, Certification #14, and Order #4 are complete contingent on documents being supplied to the Commission upon request.

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.

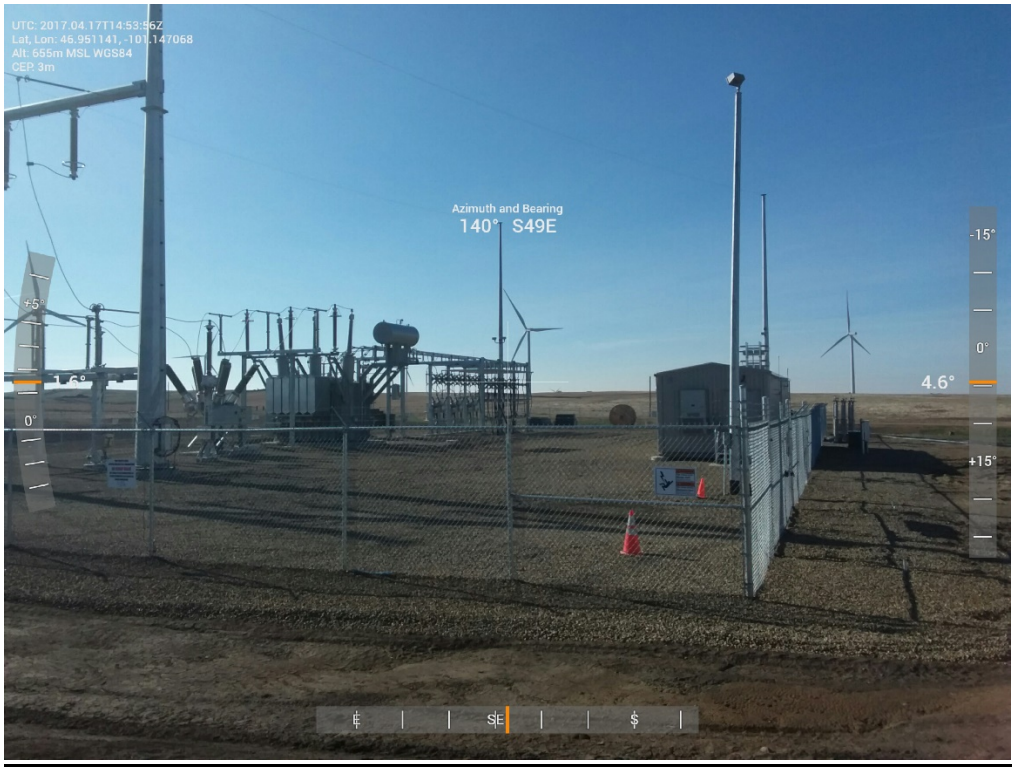
Jaimee Antognazzi

05/11/2017

Jaimee Antognazzi, Operations Manager

Date

Report Photo #1 "Substation"

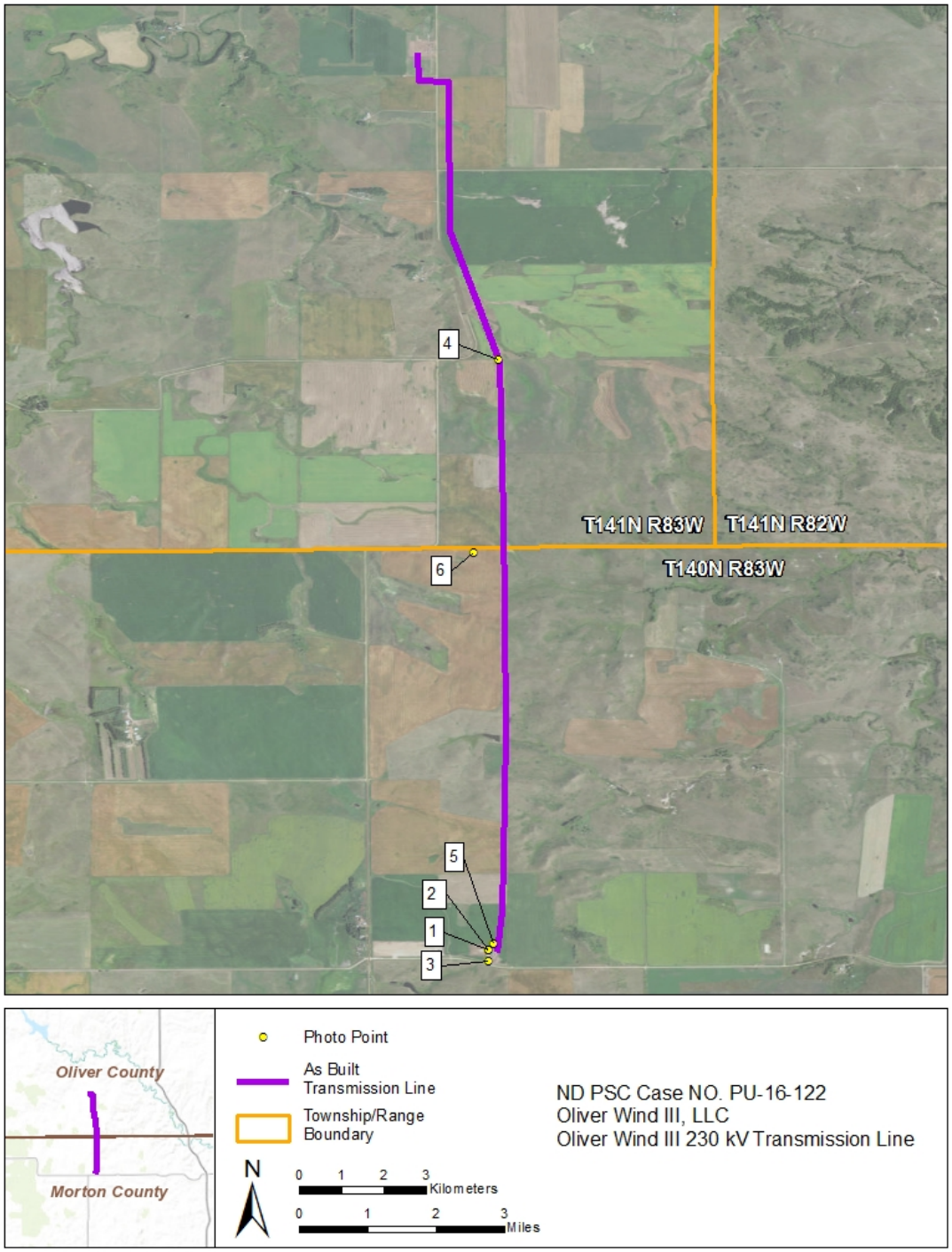


Report Photo #2 "Substation Ongoing Reclamation"

Report Photo #3 "BMP's At Substation, O&M Building"

Report Photo #4 "Transmission Line"

Report Photo #5 "Transmission Line, Ongoing Reclamation"

Report Photo #6 "Gravel Road Used During Construction In Good Condition"

Site Location – Oliver Wind III 230 kV Transmission Line (Morton and Oliver Counties)