

As-Built Inspection Report

Oliver III Wind Energy Center – Morton & Oliver Counties
Oliver Wind III, LLC

ND PSC Case No. PU-16-123

Prepared for:

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

Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	2
PURPOSE AND SCOPE OF INSPECTION	2
ORDERS	3
CERTIFICATION	5
CONCLUSIONS	6

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 Construction Inspections. This report addresses the Orders established by the Commission and issues established in Case No. PU-16-123.

The Oliver III Wind Energy Center (Project) is located in Morton and Oliver Counties, North Dakota. The wind farm is owned and operated by Oliver Wind III, LLC. Construction for the Project began in July 2016 and was completed in January 2017. The purpose of the As-Built Construction Inspection was to ensure the Project was constructed in compliance with the siting laws, siting rules, and the applicable Commission Orders 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 July 19, 2017 by Keitu staff. Overall, the project was very well-maintained and in good condition. It appeared to be constructed as planned with numerous efforts to minimize impacts and return the land as close as possible to preconstruction condition.

Introduction

The Oliver Wind III Wind Energy Center (Project) was approved and constructed in 2016-2017. The Project is operated by Oliver Wind III, LLC, a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER). The Project is a wind farm located in Morton and Oliver Counties, North Dakota, and has a nameplate capacity of approximately 100 megawatts (MW) consisting of 48 wind turbines using both General Electric (GE) 2.1 MW and GE 1.79 MW Xle wind turbine generators. Additional facilities include access roads, electrical collection systems and cabling, a collection substation, an operation and maintenance (O&M) building, meteorological towers, and a construction laydown area. 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-16-123 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 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 visually inspected the Project area on July 19, 2017. Digital photographs were taken showing typical Project conditions and documenting any problem areas (starting page 7).

Orders

The following section includes 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 Keitu personnel involved in the as-built inspection for the Project.

- 1. If modifications are made to the Project layout, Oliver Wind III, LLC shall complete a Class III cultural resource survey for any previously un-surveyed portions of the designated site affected by Project-related construction activities, in accordance with SHPO guidance; shall submit cultural resource findings to SHPO for review; and shall obtain and file a copy of SHPO's response with the Commission prior to beginning construction in said areas.**

Oliver Wind filed a Notice of Intent to Modify Site Plan on August 24, 2016. (Docket #114) Also filed the same day was Addendum 5 Cultural Resource Inventory Management Summary and a ND SHPO concurrence letter (Docket #113) for the site modification.

Order #1 is complete.

- 2. Certificate of Site Compatibility for an Energy Conversion Facility No. 49, is issued to Oliver Wind III, LLC for the construction, operation, and maintenance of an energy conversion facility known as the Oliver III Wind Energy Center corresponding to the Project Area depicted in Hearing Exhibit No. 7.**

The Commission designated a site for Oliver Wind, for the construction, operation, and maintenance of a wind energy conversion facility and associated facilities in Morton and Oliver Counties, North Dakota. This certificate and permit (Docket #87) were issued in accordance with the Orders of the Commission dated June 22, 2016 in Case No. PU-16-123 and is subject to the conditions and limitations stated in the Orders.

Order #2 is complete.

- 3. Within the permitted area, Oliver Wind III, LLC is authorized to site and construct up to 100 megawatts within the designated area consisting of up to 48 wind turbines in proposed and alternate locations, as identified in Hearing Exhibit No. 7, along with electric collection and communication lines, a project substation, access roads, an operations and maintenance building, an interconnection yard, along with other associated facilities as identified in the application and at the hearing.**

A review of the As-built survey maps (Docket #137), the Final boundary project map (Docket #139), and an in-person inspection showed that Oliver Wind did construct the turbines and associated project facilities in a manner following the Commissions orders.

Order #3 was followed.

- 4. In the event Project modifications occur that are not covered by its current sound analysis, Oliver Wind III, LLC shall conduct a sound analysis and file a report with the Commission to ensure the Project complies with the Commission's avoidance area.**

On June 30, 2016, Oliver Wind III, LLC notified the Commission that it planned to modify the site plan. (Docket #96) These modifications included removing turbine 17 and activating ALT 1 in its place, moving turbine 34 north 131 feet, and moving turbine 15 southeast 150 feet. Included with that filing was a revised Acoustic Assessment showing that these modifications do not put the Project out of compliance with the Commission's 50dBA noise limit.

Order #4 was followed.

- 5. Oliver Wind III, LLC shall locate turbines so as to meet a shadow flicker goal of 30 hours per year or less at each currently occupied residence, considering site-specific conditions, unless otherwise agreed to by the landowner.**

Oliver Wind III, LLC submitted a Shadow Flicker Impact Analysis Report for the Project. (Docket #25) A total of two occupied residences were found to have shadow flicker impacts greater than 30 hours per year, but both landowners granted easements for shadow flicker effects on their property.

Order #5 was followed.

- 6. In the event Project modifications occur that are not covered by its current shadow flicker analysis, Oliver Wind III, LLC shall conduct a shadow flicker analysis and file a report with the Commission to ensure this requirement is met.**

On June 30, 2016, Oliver Wind III, LLC notified the Commission that it planned to modify the site plan. (Docket #96) Included with that Notice was a revised shadow flicker analysis to include the new site modifications.

Order #6 was followed.

- 7. The Certification Relating to Order Provisions – Wind Energy Conversion Facility Siting with accompanying Tree and Shrub Mitigation specifications as filed with the Commission on May 27, 2016, is incorporated by reference and attached to this Order.**

Order #7 is complete

- 8. Prior to commencing construction of any portion of the proposed Project, Oliver Wind III, LLC shall obtain all other necessary licenses and permits for construction of such portion, and provide copies to the Commission prior to construction of that portion of the Wind Project to include A Determination of No Hazard from the FAA on the final Project layout.**

Oliver Wind III, LLC filed a Determination of No Hazard to Air Navigation from the FAA on August 1, 2016. (Docket #108)

Order #8 was followed.

- 9. Oliver Wind III, LLC shall file their one year post construction wildlife study with the Commission.**

One year post construction had not occurred at the time of this report. Keitu will follow up on the one year post construction wildlife study during the Reclamation and Revegetation Inspection.

Certification

The following section includes discussion of relevant items included in the Certification attached by reference to original Order (Docket #87 in Case No. PU-16-123). This Certification was also reviewed with Oliver Wind and a Commission representative during the preconstruction conference. As noted in the preconstruction conference, not all original 38 certification points are relevant to the Project.

1. Certification Point 8 – Preconstruction Conference

A preconstruction meeting was held to ensure all contractors fully understand the conditions set forth in the Order. The preconstruction conference (Docket #94) was held on June 24, 2016. In attendance was Sara Cardwell, representing the PSC, as well as representatives from Oliver Wind III, LLC and Keitu.

Certification Point 8 was followed.

2. Certification Point 11 – Monthly Progress Reports

Oliver Wind III, LLC submitted a notice of intent to commence construction on June 24, 2016 (Docket #94). During construction, Oliver Wind was to provide monthly project status emails. The most recent weekly progress report was for the week ending 1-15-2017 (Docket #138). Progress reports were submitted weekly to the Commission during the construction period of this project.

Certification Point 11 was followed.

3. Certification Point 27 – Tree and Shrub Mitigation

On June 16, 2017, the Commission voted to approve Oliver Wind’s Tree and Shrub Mitigation Plan. (Docket #142) Due to drought conditions at the site the Commission approved a request by Oliver Wind III for an extension for tree planting until spring/summer of 2018. (Docket #145)

Certification Point 27 will be considered complete once tree and shrub replacement has taken place in 2018.

4. Certification Point 35 – As-built Drawings

In the certification document, Oliver Wind agreed to provide the Commission with electronic and a paper copy of the design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within three months of the completion of the construction. As-built survey maps, both paper and electronic copies, were provided to the Commission on January 11, 2017. (Docket #137)

Certification Point #35 was followed.

Conclusions

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 and appeared to have been construction in compliance with the orders, siting rules, and certifications put forth by the Commission.

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

8-2-2017

Jaimee Antognazzi, Operations Manager

Date

Report Photo #1 Typical Turbine Site:

46.943382 -101.142196



Report Photo #2 Reclaimed Laydown Yard:

46.950529 -101.151771



Report Photo #3 BMPs Installed:

46.956168 -101.138545



Report Photo #4 Extended Turning Radius Reclamation:

46.933213 -101.113666



Report Photo #5 Access Road to Turbine Site:

46.976176 -101.211821



Project Map

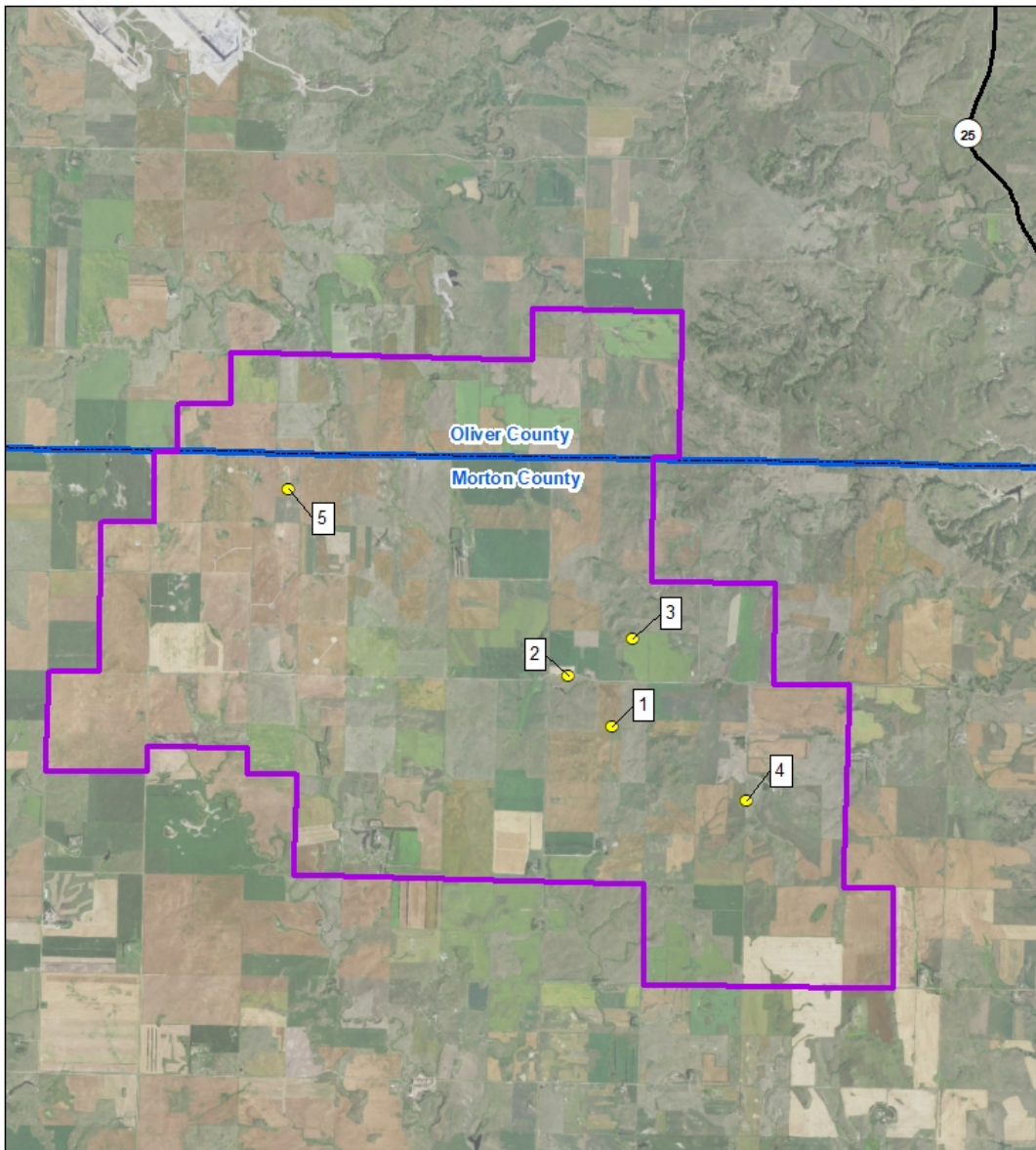


Photo Point		ND PSC Case No. PU-16-123 Oliver Wind III, LLC Oliver Wind III Farm Morton and Oliver Counties, North Dakota
State Highway		
Proposed Project Boundary		
County Boundary		