

BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS  
600 NORTH ROBERT STREET  
ST. PAUL, MINNESOTA 55101

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Route Permit Application for a 9.5 mile High Voltage Transmission Line and Associated Facilities for the Odell Wind Farm, LLC in Cottonwood, Jackson, and Martin Counties

**ENERGY ENVIRONMENTAL REVIEW AND ANALYSIS STAFF**  
**COMMENTS and ANALYSIS**

The Minnesota Department of Commerce (DOC) submits these comments of the Energy Environmental Review and Analysis (EERA) staff on the proposed 115 kV Odell Wind High Voltage Transmission Line (HVTL). In his Scheduling Order,<sup>1</sup> Administrative Law Judge (ALJ) Steven M. Mihalchick noted his expectations from the EERA. In keeping with the Scheduling Order, EERA is providing these recommended revisions to the "Proposed Summary of Public Testimony, Findings of Facts, Conclusions of Law, and Recommendations"<sup>2</sup> (FOF) provided by Odell Wind Farm, LLC (Applicant) and makes recommendations for appropriate permit conditions.

**I. EDITS AND AMENDMENTS TO THE APPLICANT'S PROPOSED FOF**

EERA has reviewed the Applicant's proposed FOF to verify that all parties have complied with the procedural requirements of issuing a route permit in the State of Minnesota and that the proposed Odell Wind Farm, LLC HVTL Project is compatible with the policy of the state to construct and operate a HVTL in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources under Minnesota Statute 216E.

---

<sup>1</sup> Scheduling Order, ALJ Mihalchick, May 27, 2014, eDockets no. [20145-99831-01](#)

<sup>2</sup> Odell Wind Farm, LLC Proposed Summary of Public Testimony, Findings of Fact, Conclusion of Law, and Recommendations (FOF), July 23, 2014, eDocket no. [20147-101681-01](#)

EERA submits the following recommended revisions to the Applicant's proposed FOF.

### **Public Meeting**

EERA edits FOF 27 to provide clarification as to which portion of the Odell Project is being referred to.

27. The Department of Natural Resources (“DNR”) staff submitted comments suggesting the Woad Hill Substation be located in the western portion of the proposed substation site to provide an increased buffer between the substation and Cedar Creek. The DNR comment letter included a statement on the requirements of the License to Cross Public Lands and Waters. The DNR also commented that the Natural Heritage Review completed for the Odell Wind Farm project is not valid for the Odell HVTL Project, and a Natural Heritage Review request should have been submitted prior to the submission of the Route Permit Application.<sup>36</sup> For this Project, the DNR reviewed the data and concurred with Odell that there are no rare features within one mile of the Project area.<sup>37</sup>

EERA edits to FOF 29 to correct the Deputy Commissioner’s title.

29. The scoping decision for the environmental assessment was signed by the Deputy Commissioner of the Department of Commerce on April 14, 2014, filed with the Commission and made available to the public as provided in Minn. R. 7850.3700, subp. 3, on April 17, 2014.<sup>39</sup>

### **Environmental Assessment**

EERA edits FOF 31 to provide clarification that a number of the individuals on the project contact list receive the Notice electronically, and only a couple of individuals requested to receive the Notice by mail.

31. On July 1, 2014, EERA mailed provided a Notice Availability of Environmental Assessment to those persons whose names are on the project contact list, local and regional

officials, and property owners in compliance with Minn. R. 7850.3700, subd. 6 and to the state and federal agency technical representatives.<sup>41</sup>

EERA adds FOF 31A to provide additional details on the distribution and public availability of the EA.

31A. On July 8, 2014, EERA mailed the EA to the Windom Public Library, Jackson County Library, Trimont Public Library, and Mountain Lake Public Library, and requested that the EA be made available for public review.

EERA edited FOF 32 to correctly identify the internet locations the EA was posted to.

32. The EA was provided to the public agencies with authority to permit or approve the proposed project and was also posted to ~~the Commission's~~ eDockets and the Commerce Energy Facilities Permitting website in accordance with Minn. R. 7850.3700, subp. 6.

EERA edited FOF 37 as EERA is not the responsible party for noticing the Public Hearing, and the entities identified in FOF 37 were notified by the Commission staff electronically, unless mail was requested by the recipient.

37. On June 20, 2014, ~~EERA sent via Certified mail~~ Commission staff provided a Notice of Public Hearing to chief executives of the regional development commissions, counties, organized towns, townships, and incorporated municipalities in accordance with Minn. Stat. § 216E.03, subd. 6.

EERA edited FOF 44 and footnote 48 to provide a filing date that was not available when the Applicant filed their proposed Findings.

44. The public hearing transcript was filed by the Office of Administrative Hearings' designated court reporter on ~~\_\_\_\_\_~~ August 4, 2014.<sup>48</sup>

### Public Hearing Comments

EERA edited FOF 47 and added footnote 52 to provide clarification that was not available at the time the Applicant filed their proposed Findings.

47. The written comments received during the comment period were from the ~~\_\_\_\_\_~~DNR.<sup>52</sup>

EERA edited FOF 48 to accurately include DNR's comments.

48. ~~[Expand as needed.] The DNR's letter continued to support the Woad Hill Substation configurations that will avoid the eastern portion of the proposed substation area adjacent to Cedar Creek. DNR acknowledged that the three substation configurations all appear to avoid the eastern portion of the proposed substation area thus avoiding impacts to the habitat associated with Cedar Creek.~~

EERA adds FOF 48A to accurately include DNR's comments.

~~48A. DNR's letter also indicated that Table 2 on page 9 of the EA did not identify the need for the Applicant to apply to the DNR for a License to Cross Public Lands and Waters. The license is needed for the two proposed crossing of Cedar Creek which is a public watercourse.~~

### Environmental Assessment of Route

EERA edited FOF 97 to more accurately describe the current conditions and mapped wetland/water resources along Cedar Creek.

97. There are two national wetlands inventory ("NWI") mapped wetlands totaling 0.5 acres within the Proposed Route. These wetlands are drained temporarily flooded emergent wetlands. A 3.96-acre semi-permanently flooded emergent wetland ("PEMF") is just south of the Proposed Route on its western end. Inspection of aerial photographs indicates that wetland is located in a cropped field. ~~There is also wetland along Cedar Creek, which crosses the Proposed Route as discussed above.,—The wetland along Cedar Creek~~ is classified as R2UBGx, an excavated, low-gradient stream with an unconsolidated bottom, where surface water is present except in extreme drought.<sup>105</sup>

EERA edited FOF 100 to provide clarification as to the agricultural crops be produced in the Project area.

101. The flora along the Proposed Route is primarily agricultural. Agricultural landscapes are dominated by plots of corn, soybeans, or oats.<sup>108</sup>

EERA edited FOF 106 to provide clarification as the wording in the Applicant's proposed Findings seemed confusing.

106. The Project will be constructed according to the Avian Power Line Interaction Committee ("APLIC") recommended safety standards in order to reduce avian collisions and electrocution. The Applicant will work with the EERA, DNR, and the U.S. Fish and Wildlife Services ("USFWS") to identify any areas that may require marking of the transmission line to reduce the likelihood of collision. The Applicant prepared a draft Avian and Bat Protection Plan ("ABPP") for the Odell Wind Farm and included measures related to the Project. ~~In relevant part, the~~ The ABPP states that transmission structures will not be located within wetland areas to the extent feasible and whenever avoidance of wetland areas is not feasible, flight diverters will be installed on portions of above-ground transmission lines crossing those areas.<sup>114</sup>

EERA edited FOF 108 to provide clarification and more accurately describe the range and listing status of the Poweshiek skipperling and the prairie bush clover.

108. The USFWS ~~considers the~~ has identified Poweshiek skipperling's range and proposed Critical habitat to include areas within Cottonwood County, and the prairie bush clover range extends into Cottonwood, Jackson, and Martin counties. ~~to possibly be within the range of the Project.~~ The Poweshiek skipperling is ~~a federal candidate~~ currently proposed to be listed as Endangered species under the Endangered Species Act ("ESA") and state special concern species, which is found in native prairie remnants. The prairie bush clover is a federal and state threatened species typically found in dry prairie sites. There are no known prairie sites within one mile of the Proposed Route.<sup>116</sup>

EERA edited FOF 109 to provide clarification as to the location being referenced with respect to the observations of trumpeter swans and bald eagles.

109. Three state special concern species (trumpeter swan, Franklin’s gull, and American white pelican) were observed within the Odell Wind Farm Project during the Tier 3 surveys. None of these species are protected by the federal ESA. Additionally, bald eagles, which are federally-protected under the Bald and Golden Eagle Protection Act, were observed during Tier 3 surveys. Both the trumpeter swan and bald eagle observations were from the northwestern portion of the [Odell Wind Farm Project](#) site, away from the Proposed Route.<sup>117</sup>

EERA edited FOF 116 to provide clarification for the reader.

116. While interference with TV signal and two-way mobile radio is not expected, if interference issues arise, the Applicant will work with affected parties to correct the problem. Interference with FM radio is generally not a problem because [of](#) the excellent interference rejection properties inherent in FM broadcast band.<sup>125</sup>

EERA edited FOF 117 to provide clarification that the Project does not meet the length requirement necessary to require a Certificate of Need (CN) be completed. The Project is greater than 100 kV so the voltage requirement would be met.

117. The Project is exempt from Certificate of Need (“CN”) requirements because it does not meet the ~~voltage or~~ length requirements of a “large energy facility” under Minnesota Statutes § 216B.2421. While the 9.5 mile, 115 kV Project is greater than 100 kV, it is less than 10 miles in length and does not cross a state border. Therefore, a CN is not required for the Project.

## II. RECOMMENDATIONS FOR PERMIT CONDITIONS

The schedule anticipates EERA will identify appropriate permit conditions for the Route permit. Having reviewed the proposed findings the ALJ may want to consider the following items in conclusions or recommendations.

The Minnesota Department of Natural Resources (DNR) provided a comment on the *Environmental Assessment* (EA) prepared by EERA. Table 2 on page 9 of the EA did not identify the need for the Applicant to apply for a License to Cross Public Lands and Waters. The DNR's comments are reflected in revised Findings 49 and 50. The Applicant's responsibility to apply for a License to Cross Public Lands and Waters is appropriate to include as a condition in the Route Permit.

Using the most recently issued Route Permit, Great River Energy 115 kV Elko New Market and Cleary Lake HVTL Project as an example, Section 4.4.2 Other Permits and Regulations of the Route Permit will require the Applicant to obtain all necessary permits and approvals for the Project.<sup>3</sup> EERA recommends that the standard language, with respect to Other Permits and Regulations, in the recently issued Route Permits be used for the Odell Route Permit under consideration.

DNR also provided a comment requesting that the Applicant avoid the eastern portion of the proposed Woad Hill Substation location. EERA recommends that the following clause be included in Section 5, Special Conditions of the Route Permit, to address this request:

- The Woad Hill Substation shall be located within the western portion of the locations and configurations that have been proposed, which will maintain a natural vegetative buffer between the Woad Hill Substation and Cedar Creek to the east of the substation.

---

<sup>3</sup> Public Utilities Commission Order Issuing a Route Permit, August 5, 2014, eDockets No. [20148-102046-01](#)

## **Recommendations**

As described in the FOF, and with the conditions listed above for the Route Permit, a Route Permit should be issued to Odell Wind Farm, LLC for the 9.5 mile, 115 kV High Voltage Transmission Line (HVTL) in Cottonwood, Jackson, and Martin counties.

EERA staff appreciates the opportunity to submit these comments.

Dated: August 13, 2014

Respectfully submitted,



Richard Davis  
Environmental Review Manager  
Minnesota Department of Commerce  
Energy Environmental Review and Analysis

85 7<sup>th</sup> Place East, Suite 500  
St. Paul, MN 55101-2198  
Telephone: (651) 539-1846  
Fax: (651) 539-1549  
Email: richard.davis@state.mn.us

---

---

## **III. RED-LINE EDITS AND AMENDMENTS TO THE APPLICANT'S PROPOSED FOF**

(Attached)

STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION

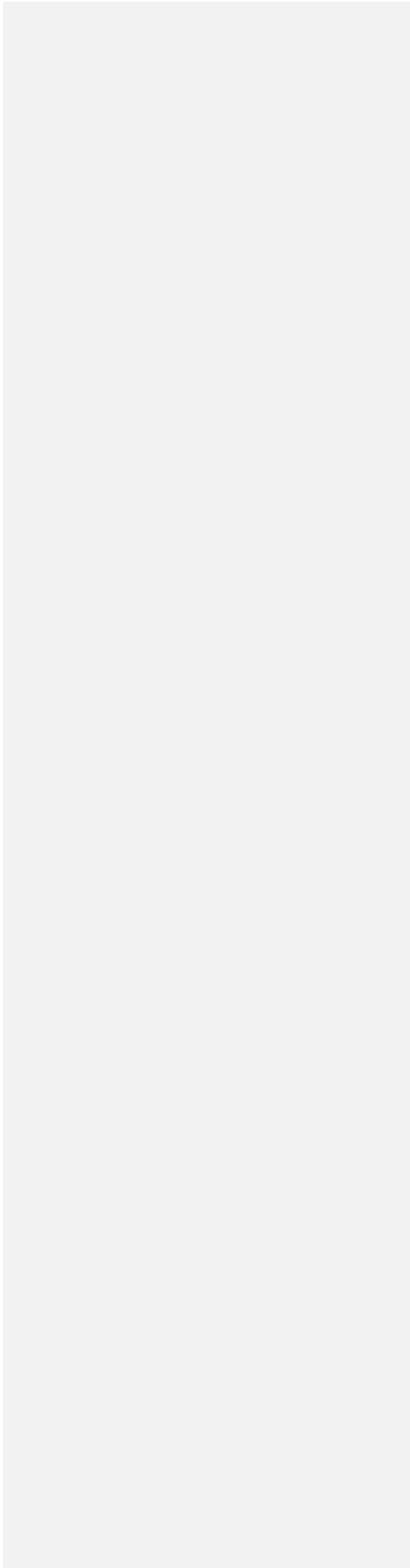
In the Matter of Odell Wind Farm, LLC's  
Route Permit Application for the Proposed  
115kV Transmission Line and Associated  
Facilities in Cottonwood, Jackson, and  
Martin Counties, Minnesota

TABLE OF CONTENTS

---

<b>STATEMENT OF ISSUE</b> .....	3
<b>SUMMARY OF CONCLUSIONS AND RECOMMENDATION</b> .....	4
<b>FINDINGS OF FACT</b> .....	4
<b>Applicant</b> .....	4
<b>The Project</b> .....	4
<b>Procedural Summary</b> .....	7
<b>Public Meeting</b> .....	8
<b>Environmental Assessment</b> .....	9
<b>Public Hearing</b> .....	10
<b>Public Hearing Comment Letters</b> .....	12
<b>Environmental Assessment of Route</b> .....	12
<i>Displacement</i> .....	14
<i>Noise</i> .....	14
<i>Aesthetics</i> .....	15
<i>Cultural Values</i> .....	15
<i>Recreation</i> .....	15
<i>Public Services/Utilities</i> .....	16
<i>Public Health and Safety</i> .....	17
<i>Airport Flight Safety</i> .....	17
<i>Electric and Magnetic Fields</i> .....	18
<i>Stray Voltage</i> .....	18
<i>Effects on Land Based Economies</i> .....	<del>20</del> 19
<i>Archaeological and Historic Resources</i> .....	21
<i>Air Quality</i> .....	21
<i>Water Quality and Water Resources</i> .....	21
<i>Flora (Plant life)</i> .....	22
<i>Fauna (Wildlife)</i> .....	23
<i>Rare and Unique Natural Resources</i> .....	23
<i>Costs of Construction, Operation, and Maintenance</i> .....	24

*Interference* ..... 25  
*Certificate of Need* ..... 25  
**Summary of Human and Environmental Impacts and Commitment of Resources**..... 25  
**Applicable Statutory Conditions** ..... 26  
**CONCLUSIONS OF LAW** ..... 26  
**RECOMMENDATION**..... 27



**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION**

In the Matter of Odell Wind Farm, LLC's  
Route Permit Application for the Proposed  
115kV Transmission Line and Associated  
Facilities in Cottonwood, Jackson, and  
Martin Counties, Minnesota

**ODELL'S PROPOSED SUMMARY OF  
PUBLIC TESTIMONY, FINDINGS  
OF FACT, CONCLUSIONS OF  
LAW AND RECOMMENDATION**

---

This matter was assigned to Administrative Law Judge ("ALJ") Judge Steve M. Mihalchick to conduct a public hearing and provide a summary of public testimony on Odell Wind Farm, LLC's ("Odell" or the "Applicant") application for a route permit to construct a new 9.5-mile 115 kilovolt (kV) transmission line and associated facilities in Cottonwood, Jackson, and Martin Counties, Minnesota, from the planned Odell Wind Farm Substation in Cottonwood County to the proposed Woad Hill Substation in Martin County (the "Project"). The Minnesota Public Utilities Commission ("PUC" or "Commission") also requested that the ALJ prepare a report setting forth Findings of Fact, Conclusions of Law and a Recommendation on the merits of the proposed project, alternatives to the proposed project, a preferred route alternative, and comments and recommendations, if any, on the conditions and provisions of the proposed permit.

ALJ Mihalchick presided over a public hearing on July 9, 2014, at Windom Community Center in Windom, Minnesota. The hearing continued until all persons who desired to speak had done so. The comment period closed on July 23, 2014, at 4:30 p.m.

Jordan Burmeister, Project Manager at Geronimo Wind Energy, LLC, and Jeremy Duehr, Attorney for Odell Wind Farm, LLC appeared at the public hearing on behalf of the Applicant.

Richard Davis, Environmental Review Manager, appeared on behalf of the Energy  
Environmental Review and Analysis Unit ("EERA") of the Department of Commerce ("DOC"  
or "Department").

Michael Kaluzniak, Senior Energy Facility Planner, appeared on behalf of the Commission staff.

**STATEMENT OF ISSUE**

Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the proposed 115 kV transmission

line from the Odell Wind Farm Substation in Cottonwood County to the proposed Woad Hill Substation in Martin County?

## SUMMARY OF CONCLUSIONS AND RECOMMENDATION

The ALJ concludes that Odell has satisfied the applicable legal requirements and, accordingly, recommends that the Commission grant a route permit for the Project, subject to the conditions discussed below.

Based upon the record created in this proceeding, the ALJ makes the following:

## FINDINGS OF FACT

### Applicant

1. Geronimo Wind Energy, LLC d/b/a Geronimo Energy, LLC (“Geronimo”), a Minnesota limited liability company, develops and builds renewable energy projects throughout the United States. Geronimo formed Odell Wind Farm, LLC (“Odell”) to own both the Project and an up to 200 megawatt (“MW”) wind energy project (“Odell Wind Farm”) in Cottonwood, Jackson, Watonwan and Martin Counties. The Odell Wind Farm will be served by the Project.<sup>1</sup>

### The Project

2. The proposed Odell 115 kV transmission line would be located in Mountain Lake Township in Cottonwood County, Kimball Township in Jackson County, and Cedar Township in Martin County. The entire Project would be approximately 9.5 miles in length,<sup>2</sup> stretching from the planned Odell Wind Farm substation in Cottonwood County to the proposed Woad Hill Substation in Martin County.<sup>3</sup>
3. The Project is 9.5 miles of new overhead 115 kV transmission line between the planned Odell Wind Farm substation and the proposed Woad Hill Substation.<sup>4</sup>
4. The Proposed Route extends from the new Odell Wind Farm substation located in Section 32 of Mountain Lake Township in Cottonwood County, MN, to the new Woad Hill Substation in Section 16 of Cedar Township in

---

<sup>1</sup> Application, eDocket ID Nos. 201312-94551-01, 201312-94551-02, 201312-94551-03, and 201312-94551-04 (Application) at p. 3.

<sup>2</sup> *Id.* at p. 3.

<sup>3</sup> *Id.* at p. 3.

<sup>4</sup> *Id.* at p. 3.

Martin County, MN. As proposed, the new single circuit 115 kV transmission line originates at the Odell Wind Farm substation and heads east along County Highway 17 to Jackson County Highway 85/600th Avenue. The Project then continues south for approximately one mile. The Project then turns to run east along Jackson County's 930th Street where, after approximately one mile, it crosses into Martin County and continues east along 240th Street for approximately two miles until the intersection of 240th Street and 30th Avenue. The Project turns south for the final time on 30th Avenue, ending approximately one and a half miles south at the proposed Woad Hill Substation at the intersection of 30th Avenue and 230th Street in Martin County.<sup>5</sup>

5. The Woad Hill Substation was originally proposed for section 16 of Cedar Township in Martin County, MN on the southeast corner of the intersection of 230th Street and 30th Avenue.<sup>6</sup> As a result of detailed design discussions with Northern States Power d/b/a Xcel Energy ("Xcel Energy"), the entity that owns the transmission line to which the Woad Hill Substation will interconnect, it was determined that the placement of the Woad Hill Substation in the southeast corner of the intersection of 230th Street and 30th Avenue may not be practicable due to Xcel Energy's internal design spacing requirements for substations and switchyards.<sup>7</sup> Ongoing discussions between Odell and Xcel Energy have resulted in the need for Odell to investigate the option of locating the Woad Hill Substation in the northwest quadrant of the intersection of 230<sup>th</sup> Street and 30<sup>th</sup> Avenue in Section 16.<sup>8</sup> Odell has submitted a request to the Commission to modify the route slightly to accommodate the option of locating the Woad Hill Substation in the northwest quadrant of the intersection of 230<sup>th</sup> Street and 30<sup>th</sup> Avenue in Section 16.<sup>9</sup>
6. The Woad Hill Substation will consist of supporting structures for high voltage electrical structures, breakers, transformers, lightning protection, and control equipment as specified in the Interconnection Agreements to be entered into with MISO and Xcel Energy. Conservatively, Odell estimates the substation will take up 10 acres of land.<sup>10</sup> From the Woad Hill Substation, the Project will connect to the electrical grid via a single 345 kV span connecting the Woad Hill Substation to Xcel's new 345 kV switchyard. The 345 kV span will be less than 1,500 feet and will be permitted by Odell through Martin County.<sup>11</sup> The switchyard and any modification to the existing 345 kV transmission line or any new 345 kV span to connect the switchyard to the

---

<sup>5</sup> *Id.* at Figure 1.1.

<sup>6</sup> *Id.* at Figure 1.1.

<sup>7</sup> Direct Testimony and Schedules for Jordan Burmeister (Burmeister Testimony), eDocket ID No. 20147-101292-01 at p. 4.

<sup>8</sup> *Id.* at p. 4.

<sup>9</sup> Odell Change to Route in Route Permit Application (Route Modification), eDocket ID No. 20146-100231-01

<sup>10</sup> Application at p. 34.

<sup>11</sup> Route Modification at p. 4

existing transmission line will be designed, permitted, and built by Xcel Energy.<sup>12</sup>

7. The proposed location for the Odell Wind Farm substation is within the Odell Wind Farm's Project boundary. It is located north of Jackson County Road 17 in Section 32 of Mountain Lake Township in Cottonwood County. The Odell Wind Farm Substation has been permitted under Docket No. IP6914/WS-13-843.<sup>13</sup>

#### *Structure Types and Spans*

8. The Applicant proposes to use wood and/or steel structures capable of handling a single-circuit load by constructing the single-circuit transmission line on wood and/or steel monopole structures.<sup>14</sup>
9. The poles will have an average height of 65 to 70 feet. The typical span length will be 400 feet.<sup>15</sup>

#### *Conductors*

10. The conduct for each of the three phases of the 115 kV line will be a 1272 kcmil (thousand circular mils<sup>16</sup>) "Bittern" Aluminum Conductor Steel Reinforced ("ACSR").<sup>17</sup>

#### *Route Width*

11. Odell has proposed the Project utilize a variable 150 to 600 foot route width for the 115 kV HVTL. The majority of the Proposed Route will be 150 feet wide extending from the road centerline. Odell is requesting that the Proposed Route width in sections 1 and 12 of Kimball Township in Jackson County be 300 feet, extending 150 feet on both sides of the road centerline. The proposed 300 foot route width in this area will allow additional flexibility to accommodate distances from homes. Odell is requesting a 600 foot route width in section 6 and 7 of Cedar Township in Martin County. In this area, the additional route width will allow flexibility to work around a known easement title issue in Section 7.<sup>18</sup>

---

<sup>12</sup> Application at p. 9.

<sup>13</sup> Order Issuing Site Permit and Approving Avian and Bat Protection Plan (Order Issuing Site Permit), eDocket ID No. 13-843, (July 17, 2014).

<sup>14</sup> Application at p. 9.

<sup>15</sup> Notice of Environmental Assessment (EA Notice), eDocket ID No. 20147-101131-01 at p. 13.

<sup>16</sup> A circular mil is the cross-sectional area of the conductor equal to a circle with a diameter equal to one mil (one thousand of an inch).

<sup>17</sup> Application at p. 10.

<sup>18</sup> ALJ Report at p. \_\_\_\_ (not yet available).

*Right-of-Way*

12. Odell entered into Transmission Easement Agreements (“transmission easements”) with private landowners that describe the easement and terms of the agreement. The transmission easements include a strip of land that is eighty feet wide parallel and adjacent to the existing road right-of-way and a strip of land comprising one-half of the existing road right-of-way. The road rights-of-way are generally 66 feet for township roads or 100 feet for county roads. Therefore, the total easement width in the transmission easements is 113 feet along township roads and 130 feet along county roads. To accommodate the area included within its transmission easements, Odell is requesting a right-of-way of 113 and 130 feet for the Project.<sup>19</sup>

*Project Schedule*

13. The Project construction will begin after applicable federal, state, and local approvals have been obtained, property and ROW are acquired, soil conditions are established and final design is completed.<sup>20</sup>

*Project Cost*

14. The estimated cost for the 9.5 miles of transmission line between the Odell Wind Farm Substation and the Woad Hill Substation is \$3.5 million. The estimated cost of the proposed Woad Hill Substation is \$2 million.<sup>21</sup>
15. Operation and maintenance costs for the transmission line will be nominal in the initial years of operation. Annual operation and maintenance costs for 115 kV transmission lines in the Upper Midwest are typically \$300-\$600 dollars per mile of transmission right-of-way.<sup>22</sup>

**Procedural Summary**

16. On July 8, 2013, in accordance with Minn. R. 7850.2800, subp. 2, the Applicant filed a letter with the Commission noticing their intent to submit a route permit application under the alternative permitting process set forth in Minn. Stat. § 216E.04 and Minn. R. 7850.2800 to 7850.3900.<sup>23</sup>
17. On December 12, 2013, the Applicant filed a route permit application (Application) with the Commission for a 115 kV transmission line to be

---

<sup>19</sup> Application at p. 7.

<sup>20</sup> *Id.* at pp. 12 and 13.

<sup>21</sup> *Id.* at p. 6.

<sup>22</sup> EA Notice at p. 16.

<sup>23</sup> Notice of Route Permit Application under Alternative Review (Route Permit Notice), eDocket ID No. 20137-88942-01.

constructed in Mountain Lake Township in Cottonwood County, Kimball Township in Jackson County, and Cedar Township in Martin County.<sup>24</sup>

18. The Applicant mailed a Notice of Filing of Route Permit Application on December 26, 2013, to those persons whose names are on the general list maintained by the Commission for this purpose, local and regional officials, and property owners in compliance with Minn. R. 7850.3300 and 7850.2100.<sup>25</sup>
19. Odell also completed newspaper notice in the *Jackson County Pilot*, the *Fairmont Sentinel*, and the *Cottonwood County Citizen* in compliance with Minn. R. 7850.3300 and 7850.2100, subp. 4.<sup>26</sup>
20. The EERA staff recommended that the Commission accept the route permit application as complete and determine that an advisory task force was not necessary.<sup>27</sup>
21. On February 4, 2014, the Commission accepted the application as complete and authorized the EERA staff to process the application under the alternative permitting process in Minn. R. 7850.2900 to 7850.3900. The Commission also authorized the Commission staff to name a public advisor and determined that an advisory task force was not necessary at that time.<sup>28</sup>
22. On January 23, 2014, EERA issued and mailed a Notice of Public Information Meeting to those persons whose names are on the project list maintained by the Commission for this purpose in compliance with Minn. R. 7850.3500, subp. 1 and 7850.2300, subp. 2. EERA also sent the Notice to designated State Agency Technical Representatives.<sup>29</sup>
23. A hard copy of the route permit application was made available at the Mountain Lake Public Library, Jackson Public Library, Trimont City Library, and Windom Public Library.<sup>30</sup>

### **Public Meeting**

24. The scoping process is the first step in developing an EA. The Department of Commerce is required to “provide the public with an opportunity to participate in the development of the scope of the environmental assessment

---

<sup>24</sup> Application

<sup>25</sup> Affidavits of Publication of Newspaper Notices, eDocket ID Nos. 20141-95836-01 and 20141-95738-01

<sup>26</sup> *Id.*

<sup>27</sup> Order Finding Application Complete and Referring Matter to the Office of Administrative Hearings (Order Finding Application Complete), eDocket ID Nos. 20142-96156-01 and 20142-96156-02.

<sup>28</sup> *Id.*

<sup>29</sup> Notice of Public Information and Environmental Assessment Scoping Meeting, eDocket ID No. 20141-95727-01.

<sup>30</sup> *Id.*

by holding a public meeting and by soliciting public comments.”<sup>31</sup> During the scoping process, alternative routes may be suggested for evaluation in the EA.<sup>32</sup>

25. In accordance with Minn. R. 7850.3500, subp. 1 and 7850.2300, subp. 1 to 4, EERA and Commission staff held a joint public information and environmental assessment scoping meeting on February 10, 2014, in Windom, Minnesota. Four members of the public attended the scoping meeting. One landowner within the Proposed Route spoke at the meeting, and expressed support for the Project and willingness to work with Odell to accommodate routing on his property.<sup>33</sup>
26. The public comment period on the scope of environmental assessment closed on February 24, 2014.<sup>34</sup> EERA received one letter during the scoping comment period.<sup>35</sup>
27. The Department of Natural Resources (“DNR”) staff submitted comments suggesting the Woad Hill Substation be located in the western portion of the proposed substation site to provide an increased buffer between the substation and Cedar Creek. The DNR comment letter included a statement on the requirements of the License to Cross Public Lands and Waters. The DNR also commented that the Natural Heritage Review completed for the Odell Wind Farm project is not valid for the Odell HVTL Project, and a Natural Heritage Review request should have been submitted prior to the submission of the Route Permit Application.<sup>36</sup> For this Project, the DNR reviewed the data and concurred with Odell that there are no rare features within one mile of the Project area.<sup>37</sup>
28. No alternative routes were suggested through oral or written comments.<sup>38</sup>
29. The scoping decision for the environmental assessment was signed by the Deputy Commissioner of the Department of Commerce on April 14, 2014, filed with the Commission and made available to the public as provided in Minn. R. 7850.3700, subp. 3, on April 17, 2014.<sup>39</sup>

### **Environmental Assessment**

---

<sup>31</sup> Minn. R. 7850.3700, subp. 2.

<sup>32</sup> Minn. R. 7850.3700, subp. 2B.

<sup>33</sup> Odell Wind HVTL Project – DOC Environmental Assessment Scoping Decision (Scoping Decision), eDocket ID No. 20144-98456-01 at p. 1.

<sup>34</sup> *Id.*

<sup>35</sup> Notes from Odell Wind HVTL Public Information and EA Scoping Meeting (Scoping Meeting Notes), February 10, 2014, eDocket ID No. 20142-96887-01.

<sup>36</sup> Scoping Decision at p. 1.

<sup>37</sup> Staff Briefing Papers for April 10, 2014 Meeting, eDocket ID No. 20144-97903-01 at p. 3.

<sup>38</sup> Scoping Decision at p. 2.

<sup>39</sup> *Id.*

30. The environmental assessment was filed with the Commission and made available on June 30, 2014.<sup>40</sup> The environmental assessment was prepared in accordance with Minn. R. 7850.3700, and contained all the information required.
31. On July 1, 2014, EERA ~~mailed~~ provided a Notice Availability of Environmental Assessment to those persons whose names are on the project contact list, local and regional officials, and property owners in compliance with Minn. R. 7850.3700, subd. 6 and to the state and federal agency technical representatives.<sup>41</sup>
- 31A. On July 8, 2014, EERA mailed the EA to the Windom Public Library, Jackson County Library, Trimont Public Library, and Mountain Lake Public Library, and requested that the EA be made available for public review.
32. The EA was provided to the public agencies with authority to permit or approve the proposed project and was also posted to ~~the~~ Commission's eDockets and the Commerce Energy Facilities Permitting website in accordance with Minn. R. 7850.3700, subp. 6.
33. Pursuant to Minn. R. 7850.3700, subp. 6, EERA published a Notice of Availability of Environmental Assessment in the EQB Monitor on July 9, 2014.<sup>42</sup>
34. The Environmental Assessment evaluated the Applicant's Proposed Route including the three options proposed by the Applicant for the Woad Hill Substation.

### **Public Hearing**

35. Pursuant to Minn. Stat. Ch. 216E.03, subd. 6, the Applicant published a Notice of Public Hearing in the Jackson County Pilot on June 26, 2014, the Cottonwood County Citizen on June 25, 2014 and the Fairmont Sentinel on June 25, 2014.<sup>43</sup>
36. On June 20, 2014, a Notice of Public Hearing was mailed to those persons whose names are on the project contact list, local and regional officials, and

---

<sup>40</sup> Odell Wind HVTL Environmental Assessment (EA), eDocket ID No. 20146-101031-01.

<sup>41</sup> Notice of Public Hearing (Public Hearing Notice), eDocket ID Nos. 20146-100636-01 and 20146-100636-02.

<sup>42</sup> EQB Monitor Notice, eDocket ID No. 20147-101288-01.

<sup>43</sup> Publication of Notice of Public Hearing in *Jackson County Pilot*, *Fairmont Sentinel*, and *Cottonwood County Citizen*, eDocket ID No. \_\_\_ (filed July 23, 2014).

property owners in compliance with Minn. Stat. § 216E.03, subd. 6 and to the state and federal agency technical representatives.<sup>44</sup>

37. On June 20, 2014, ~~EERA sent via Certified mail~~ Commission staff provided a Notice of Public Hearing to chief executives of the regional development commissions, counties, organized towns, townships, and incorporated municipalities in accordance with Minn. Stat. § 216E.03, subd. 6.
38. Minnesota Office of Administrative Hearings, Steve M. Mihalchick, Administrative Law Judge (ALJ) presided over the public hearing conducted on July 9, 2014. The public hearing was held at the Windom Community Center in Windom, Minnesota. The ALJ provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question and comments in writing.<sup>45</sup>
39. Approximately 7 members of the public attended the public hearing. All persons who desired to speak were afforded a full opportunity to make a statement on the record.<sup>46</sup>
40. Pursuant to Minn. R. part 7850.3800, subp. 3, Minnesota Department of Commerce, EERA representative Richard Davis, was at the public hearing and described the alternative route permitting process, the proposed Project, and introduced the EA and other relevant documents for the record.
41. Jeremy Duehr, from the law firm of Fredrikson & Byron, P.A., appeared at the public hearing on behalf of Odell in this matter. Also present at the public hearing for Odell was Jordan Burmeister.
42. Michael Kaluzniak, Planning Director, was at the public hearing on behalf of the Minnesota Public Utilities Commission.
43. Public comments on the proposed Project were accepted by the ALJ until July 23, 2014.<sup>47</sup>
44. The public hearing transcript was filed by the Office of Administrative Hearings' designated court reporter on ~~August 4, 2014~~ August 4, 2014.<sup>48</sup>
45. Public comments received at the public hearing were given in support of the Project. One landowner within the proposed route spoke at the hearing and expressed support for the Project and his willingness to work with Odell to accommodate routing on his property.<sup>49</sup> A representative from the Windom

---

<sup>44</sup> Public Hearing Notice

<sup>45</sup> ALJ Report (not yet available).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> Public Hearing Transcript, [August 4, 2014, eDockets No. 20148-101990-01 \(not yet available\)](#).

<sup>49</sup> ALJ Report (not yet available).

Economic Development Authority spoke at the hearing and expressed support for the Project and the economic benefits it will bring to the region.<sup>50</sup>

46. The Project is being reviewed under the Alternate Review Process in accordance with Minn. Stat. § 216E.04, as ordered by the Commission.<sup>51</sup> The questions of need, including size, type, and timing; alternative system configurations; and voltage must not be included in the scope of environmental review conducted under this Chapter (Minn. Stat. § 216E.02, subdivision 2).

### **Public Hearing Comment Letters**

47. The written comments received during the comment period were from the DNR.<sup>52</sup>

48. ~~Expand as needed.~~ The DNR's letter continued to support the Woad Hill Substation configurations that will avoid the eastern portion of the proposed substation area adjacent to Cedar Creek. DNR acknowledged that the three substation configurations all appear to avoid the eastern portion of the proposed substation area thus avoiding impacts to the habitat associated with Cedar Creek.

48A. DNR's letter also indicated that Table 2 on page 9 of the EA did not identify the need for the Applicant to apply to the DNR for a License to Cross Public Lands and Waters. The license is needed for the two proposed crossing of Cedar Creek which is a public watercourse.

### **Environmental Assessment of Route**

49. The Proposed Route analyzed in the Environmental Assessment has human and environmental impacts, some of which are unavoidable if the project is permitted and built. The route is not expected to cause an irreversible or irretrievable commitment of resources, except for the use of water for dust abatement during construction and the commitment of labor and fiscal resources to develop and build the Project.<sup>53</sup>
50. In the Application, the Applicant identified a Proposed Route.<sup>54</sup>

---

<sup>50</sup> Public Hearing Transcript (not yet available).

<sup>51</sup> Order Finding Application Complete.

<sup>52</sup> [DNR Comment Letter, July 23, 2013, eDockets no. 20147-101686-01](#)

<sup>53</sup> EA at p. 63.

<sup>54</sup> Application at p. 6.

51. The Proposed Route extends from the new Odell Wind Farm substation located in Section 32 of Mountain Lake Township in Cottonwood County, MN, to the new Woad Hill Substation in Section 16 of Cedar Township in Martin County, MN. As proposed, the new single circuit 115 kV transmission line originates at the Odell Wind Farm substation and heads east along County Highway 17 to Jackson County Highway 85/600th Avenue. The Project then continues south for approximately one mile. The Project then turns to run east along Jackson County's 930th Street where, after approximately one mile, it crosses into Martin County and continues east along 240th Street for approximately two miles until the intersection of 240th Street and 30th Avenue. The Project turns south for the final time on 30th Avenue, ending approximately one and a half miles south at the proposed Woad Hill Substation at the intersection of 30th Avenue and 230th Street in Martin County.<sup>55</sup>
52. Odell is requesting a 600 foot route width in sections 6 and 7 of Cedar Township in Martin County. In this area, the additional route width will allow flexibility to work around a known easement title issue in Section 7.<sup>56</sup> Odell would prefer to locate the Project as far from the residence as possible, which would be south of 240<sup>th</sup> Street; however, absent a consent and crossing agreement with the existing easement holder south of 240<sup>th</sup> Street, Odell is unable to do so. Locating the Project south of 240<sup>th</sup> Street in Sections 6 & 7 without securing a consent and crossing agreement with the existing easement holder would make the Project difficult to construct due to the financing issues created by title issue.<sup>57</sup>
53. The Woad Hill Substation was originally proposed for section 16 of Cedar Township in Martin County, MN on the southeast corner of the intersection of 230th Street and 30th Avenue.<sup>58</sup> As a result of detailed design discussions with Northern States Power d/b/a Xcel Energy ("Xcel Energy"), the entity that owns the transmission line to which the Woad Hill Substation will interconnect, it was determined that the placement of the Woad Hill Substation in the southeast corner of the intersection of 230th Street and 30th Avenue may not be practicable due to Xcel Energy's internal design spacing requirements for substations and switchyards.<sup>59</sup> Ongoing discussions between Odell and Xcel Energy have resulted in the need for Odell to investigate the option of locating the Woad Hill Substation in the northwest quadrant of the intersection of 230<sup>th</sup> Street and 30<sup>th</sup> Avenue in Section 16.<sup>60</sup> Odell has submitted a request to the Commission to modify the route slightly to

---

<sup>55</sup> Application at p. 6.

<sup>56</sup> ALJ Report (not yet available).

<sup>57</sup> *Id.*

<sup>58</sup> Application at Figure 1.1.

<sup>59</sup> Burmeister Testimony at p. 4.

<sup>60</sup> *Id.*

accommodate the option of locating the Woad Hill Substation in the northwest quadrant of the intersection of 230<sup>th</sup> Street and 30<sup>th</sup> Avenue in Section 16.<sup>61</sup>

54. On June 6, 2014, Odell filed a request to expand the route width of the Project to accommodate the potential revised location and design of the proposed Woad Hill Substation. The requested route expansion would provide Odell with the option to construct the proposed Woad Hill Substation from the NW1/4 of Section 16, T104N, R33W to the SE1/4 of Section 8, T104N, R33W, of Martin County. The additional route area being requested is approximately 480 feet wide and 950 feet long directly to the west of the originally Proposed Route.
55. EERA determined that Odell's request to expand the Proposed Route was not deemed to be a substantial change or substantial new information that significantly affected the potential environmental effects of the Project or the availability of reasonable alternatives.<sup>62</sup>
56. All proposed configurations of the Woad Hill Substation would be sited entirely within currently tilled cropland and would therefore be expected to have similar environmental impacts.<sup>63</sup>
57. Richard Davis, of EERA, testified at the public hearing that the option presented by Odell to locate the Woad Hill Substation in the northwest quadrant of the intersection of 230<sup>th</sup> Street and 30<sup>th</sup> Avenue in Section 16 would address the DNR's request to keep the Woad Hill Substation as far from Cedar Creek as practicable.<sup>64</sup>

#### *Displacement*

58. The Applicant has stated that the transmission line will be designed to avoid displacement of existing residences or businesses.<sup>65</sup>

#### *Noise*

59. The Minnesota Pollution Control Agency ("MPCA") has established standards for the regulation of noise levels.<sup>66</sup>
60. For residential land, the MPCA noise limits are 60-65 A-weighted decibel ("dBA") during the daytime and 50-55 dBA during the nighttime. For commercial land, the MPCA noise limits are 65-70 dBA during the daytime

---

<sup>61</sup> Route Modification.

<sup>62</sup> Transcript of Public Hearing (not yet available).

<sup>63</sup> Burmeister Testimony, at p. 5.

<sup>64</sup> Transcript of Public Hearing (not yet available).

<sup>65</sup> Application at p. 13.

<sup>66</sup> Minn. R. 7030; Ex. 2 at p. 27.

and nighttime. For industrial land, the MPCA noise limits are 75-80 dBA during the daytime and nighttime.<sup>67</sup>

61. There will be noise generated by construction equipment during the construction of the Project. The closest residences to the application alignment are the three homes located within the Proposed Route. Where the Proposed Route width is 600 feet in T104 R33 Section 6 in Martin County, one home is approximately 60 feet from the application alignment. In T104 R34 Section 12 in Jackson County, two homes are approximately 200 feet from the application alignment and substation location. Noise levels produced by a 115 kV transmission line and substation are generally less than outdoor background levels and therefore are not usually audible. Therefore, no noise impacts are expected. Construction will be limited to daytime hours to avoid nighttime construction noise. After construction, no proposed impacts are anticipated, so mitigation is not necessary.<sup>68</sup>

#### *Aesthetics*

62. The Project will result in an alteration of the current visual landscape through construction of wood or steel poles of approximately 70 feet in height, the construction of the Woad Hill Substation, consisting of components typically found at substations: a control building, fencing, transformer and transmission line.<sup>69</sup>
63. The Proposed Route mitigates visual disruptions in the rural landscape by siting the route along existing roadway corridors. The combination of these two linear features (the Project and the road) minimizes impacts to the landscape to the greatest extent possible.<sup>70</sup> Security lighting within the Woad Hill Substation will be shielded downward to minimize lighting impacts on surrounding residences.<sup>71</sup>

#### *Cultural Values*

64. The communities in the vicinity of the Project have cultural values tied to rural agriculture, light industry and recreation.<sup>72</sup>
65. The presence of the Project will not significantly impact the agricultural land use or general character or cultural values of the area. As demonstrated by other transmission projects in the Midwest, agricultural practices continue throughout construction and operations.

#### *Recreation*

---

<sup>67</sup> Minn. R. 7030.0040; Ex. 13 at p. 30.

<sup>68</sup> EA at pp. 30-31.

<sup>69</sup> Application at p. 33.

<sup>70</sup> EA at p. 33.

<sup>71</sup> *Id.*

<sup>72</sup> Application at p. 31.

66. There are no recreational facilities located along the Proposed Route.<sup>73</sup>
67. There are a variety of recreation opportunities approximately four miles west of the Project, near the Des Moines River. The following State Wildlife Management Areas are within five miles of the Project: Bennett State Wildlife Management Area; Banks State Wildlife Management Area; Fossum State Wildlife Management Area; and, Laurs Lake State Wildlife Management Area. There is one Waterfowl Production Area (Christiana) within five miles of the Project. Mountain County Park is approximately five miles north of the Project. Fossum State Wildlife Management Area is approximately 2.5 miles northeast of the Project. Two public trails are within five miles of the Project: the Riverside Snowmobile Trail and the Elm Creek Trail. The Riverside Snowmobile Trail runs north and northeast of the Project. The Elm Creek Trail is a five-mile ATV trail located south of the Project on private land in Martin County. Recreation opportunities include boating, hunting, fishing, wildlife viewing, and hiking.<sup>74</sup>
68. Because all Project facilities will be located on private lands, there will be no direct impacts to recreational facilities. Indirect impacts to recreational resources will be visual in nature and limited to persons using public or private property in or near the Project. During construction, the noise from increased vehicle traffic and construction activities may temporarily alter the experience of those using recreational resources. In order to maintain safety standards, hunting and other recreational activities may be temporarily suspended when construction or maintenance personnel are working at the Project. After construction is completed, the specific locations of the facilities may also impact hunting by affecting the direction in which hunters may shoot (to avoid striking transmission facilities).<sup>75</sup>
69. To the extent possible, the Project's facilities will be placed in a manner so as to avoid impacts to recreational resources. No additional mitigation to recreational resources is proposed.<sup>76</sup>

#### *Public Services/Utilities*

70. Public services and utilities are generally defined as services provided by government entities including hospitals, fire and police departments, schools, roads and highways, public parks, and water supply. Utilities also include private wells, septic systems and other utilities. Given the rural nature of the project area, public services are limited.<sup>77</sup>

---

<sup>73</sup> *Id.* at p. 32.

<sup>74</sup> *Id.* at p. 32.

<sup>75</sup> *Id.*

<sup>76</sup> EA at p. 43.

<sup>77</sup> Application at p. 33.

71. The Applicant will work with MnDOT, the counties, the relevant townships, and all public service providers to coordinate any potential or planned outages when consolidating facilities.<sup>78</sup>
72. Impacts to public services are expected to be minimal. Impacts to the telecommunications, electrical, and water services would likely occur during construction maintenance activities, and may involve temporary disruptions of service to facilitate relocation of facilities. No permanent impacts to local services are anticipated. No impacts to regional gas services. Impacts associated with interconnecting the line with the grid will be coordinated with MISO and Xcel Energy (the interconnecting utility).<sup>79</sup>

#### *Public Health and Safety*

73. The Project will be designed and constructed in compliance with local, state, and National Electrical Safety Code (“NESC”) standards regarding clearance to the ground, clearance to utilities, clearance to buildings, strength of materials and right-of-way widths.<sup>80</sup>
74. The Project will be equipped with protective devices to safeguard the public in the event of an accident or fall. The protective equipment is designed to de-energize the transmission line should such an event occur.<sup>81</sup> In addition, proper signage will be posted to warn the public of safety risks associated with the equipment.<sup>82</sup>

#### *Airport Flight Safety*

75. Three private airports/airstrips are located within five miles of the Project. Two of these airstrips are located in Mountain Lake Township in Cottonwood County; one airstrip is 1.3 miles from the Project, the other airstrip is 2.5 miles from the Project. The closest public use airport is Windom Municipal Airport, which is located approximately nine miles northwest of the Project in Cottonwood County.<sup>83</sup>
76. The Applicant is coordinating with the landowners of the private airports/airstrips and has sited the transmission line far from their facilities. No impacts are anticipated due to the distance of each of the airports/airstrips from the Project.<sup>84</sup>

---

<sup>78</sup> *Id.*

<sup>79</sup> EA at p 48.

<sup>80</sup> Application at p. 24.

<sup>81</sup> Application at p. 24.

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* at pp. 24-25.

<sup>84</sup> *Id.*

### *Electric and Magnetic Fields*

77. The issue of electric and magnetic fields was discussed in the EA.<sup>85</sup> A number of national and international health agencies (e.g., the Minnesota Department of Health, the World Health Organization, the National Institute of Environmental Health Sciences) have concluded in their research that there is insufficient evidence to prove a connection between electric and magnetic field exposures and health effects. Research has not been able to establish a cause and effect relationship between exposure to magnetic fields and human disease, nor a plausible biological mechanism by which exposure to electric and magnetic fields could cause disease.<sup>86</sup> The maximum magnetic field for this Project, as calculated by the Applicant, would be 153.87 milligauss, one meter above the ground and directly below the line.<sup>87</sup> No Minnesota regulations have been established pertaining to magnetic fields from high-voltage transmission lines. The Environmental Quality Board (EQB) and the Commission have historically recommended an 8 kV/m maximum electric field for transmission lines of 500 kV or greater to prevent potential shock hazards.<sup>88</sup> The maximum electric field for this Project, as calculated by the Applicant, would be 1.80 kV/m, at one meter above the ground.<sup>89</sup>
78. The absence of any demonstrated impact by electric field and magnetic field exposure supports the conclusion that there is no demonstrated impact on human health and safety. No adverse effects from electric fields and magnetic fields on health are expected for persons living or working at locations along or near the proposed Project.<sup>90</sup>

### *Stray Voltage*

79. Transmission lines (alternate current or AC) can induce “stray” voltage on nearby conductive objects. When the electric-magnetic field of a transmission line is within range of a nearby conductive object, a voltage may be induced on the object. The magnitude of the voltage depends on the weather conditions, the object’s ability to collect an electric charge (capacitance), and

---

<sup>85</sup> EA at pp. 34-42.

<sup>86</sup> *Id.* at p.42.

<sup>87</sup> Application at p. 21.

<sup>88</sup> See In the Matter of the Petitions of Northern States Power Company d/b/a Xcel Energy and Dairyland Cooperative for Permits to Construct a 115 kV and 161 kV Transmission Line from Taylors Falls to Chisago County Substation, Docket No. E-002/TL-06-1677, Environmental Assessment at p. 45 (Aug. 20, 2007); Ex. 13 at p. 35.

<sup>89</sup> Application at p. 18.

<sup>90</sup> EA at p. 42.

vary with the object's shape, size, orientation and location, object to ground resistance.<sup>91</sup>

80. If a voltage is induced on an object insulated from the ground and a person touches the object, a small current (induced current or stray voltage) would pass through their body to the ground. This current may produce a spark discharge or mild shock to the individual. This type of stray voltage occurs most often on long fences and distribution lines built under transmission. Proper grounding of metal objects under the transmission line is the best method of avoiding these shocks. Most shocks from induced current are considered more of a nuisance than a danger. The Commission's electric field limit of 8 kV/m was designed to prevent serious hazard from shocks due to induced voltage under transmission lines. The NESC sets an induced current limit of five milliamps (mA) for objects under transmission lines.<sup>92</sup>
81. Stray voltage (neutral to earth voltage, or NEV) is an extraneous voltage that appears on grounded surfaces in buildings, barns and other structures. This type of stray voltage may result from a damaged, corroded, or poorly connected wiring or damaged insulation (contact voltage). Stray voltage (NEV) and its impact on dairy farms is normally an issue associated with electrical distribution lines and is a condition that can exist between the neutral wire of a service entrance and grounded objects in buildings. Transmission lines do not, by themselves, create NEV, but they can induce voltage on a distribution circuit that is parallel and immediately under the transmission line. This induced voltage only occurs in the immediate vicinity of the distribution circuit and does not travel along the transmission or distribution line.<sup>93</sup>
82. The quality of the farm/structure wiring system has the largest single influence on contact voltage. Stray voltage (NEV) sources can be reduced in three fundamental ways: reduce the current flow on the neutral system; reduce the resistance of the neutral system; or improve the grounding of the neutral system. Making good electrical connections and making sure that these connections are maintained by the proper choice of wiring materials for wet and corrosive locations will reduce the resistance of the grounded neutral system and thereby reduce NEV levels.
83. Appropriate measures will be taken by the Applicant during transmission line design, construction, and operation to prevent the potential for any stray voltage problems from this Project particularly in areas where the Project is parallel to or crosses distribution lines.<sup>94</sup> The Applicant will be required to address and rectify any stray voltage problems that arise during transmission line operation, as a condition of the route permit.

---

<sup>91</sup> *Id.* at p. 37.

<sup>92</sup> *Id.* at p. 38.

<sup>93</sup> *Id.*

<sup>94</sup> Application at p. 22.

*Effects on Land Based Economies*

84. The majority of the land near the Project is cultivated farmland. Corn, soybeans, small grains, and forage crops are grown throughout the three counties. Cash crops and livestock production are the major sources of agricultural income. Martin County is listed as the second highest livestock-producing county in Minnesota. Martin and Jackson Counties are listed in the top ten counties for Minnesota crop production, with Martin County ranking sixth and Jackson County ranking eighth.<sup>95</sup>
85. Although Jackson, Cottonwood, and Martin Counties are large livestock-producing areas, the Applicant has not identified any livestock operations along the Proposed Route. Construction and maintenance of the Project will result in permanent and temporary impacts to farmland such as soil compaction and crop damage. Permanent impacts will occur as a result of structure placement along the route centerline. The Applicant estimated that the permanent impacts in agricultural fields will be approximately 20 square feet per pole, or about 0.06 acres in total. In addition, the Applicant has estimated that the Woad Hill Substation will take up 10 acres of land for a total permanent impact of 10.06 acres.<sup>96</sup>
86. The Applicant intends to place the poles as close as feasible (approximately 5 feet) from the edge of the roadway right-of-way. The Applicant will work with landowners to identify appropriate locations for poles. The final spacing and location of poles will be done to accommodate the movement of farm equipment between and around their locations while still maintaining safety and design standards. The Applicant has elected to use a span between poles that is at the upper end of typical span lengths to minimize the number of poles. The Applicant will coordinate construction of the Project either before crops are planted or following harvest, if possible. If this is not possible, the Applicant will compensate for any impact to crops, including compaction that might result from construction. Additionally, the Applicant will compensate for crop impacts resulting from the operations and maintenance of the Project.<sup>97</sup>
87. The EA indicates that the Project would permanently impact approximately 10 acres of agricultural land.<sup>98</sup>
88. Because the route follows existing ROW for its entire length, clearing of trees would be minimal. Tree clearing will be limited to the transmission right-of-way and adjacent areas that impact safe operation of the transmission facilities, and will be a condition of the route permit.

---

<sup>95</sup> *Id.* at p. 34.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.* at pp. 34-35.

<sup>98</sup> EA at p. 23.

89. There are no tourism and recreation activities located along the route that may be indirectly impacted by the Project because of viewshed or alteration of the landscape. The route will not impact or interfere with existing recreational areas or recreational/tourism opportunities within or near the Project area.<sup>99</sup>
90. There are no mined areas or identified potential mineral resources in the immediate area of the Proposed Route or Woad Hill Substation.<sup>100</sup>

#### *Archaeological and Historic Resources*

91. No known archaeological or architectural resources were identified within or adjacent to the Proposed Route. Therefore, no impacts are anticipated during the installation of the Project.<sup>101</sup>
92. The Applicant shall make every effort to avoid impacts to identified archaeological and historic resources when installing the Project on the approved route. In the event that an impact would occur, the Applicant will consult with the Commission, State Historic Preservation Office and invited consulting parties. Where feasible, avoidance of the resource is required.

#### *Air Quality*

93. Air quality impacts associated with transmission lines are minimal. During construction, temporary impacts associated with fugitive dust could occur.
94. Post-construction, the creation of ozone can occur as a result of corona, which can occur in localized areas around transmission lines or other energized electrical devices. This reaction also occurs when lightning strikes. Corona can cause the breakdown and ionization of air within a few centimeters of the conductor. This produces a small amount of ozone and oxides of nitrogen in the air surrounding the conductor. Ozone is very reactive, and it combines easily with other elements in the atmosphere, thus making it short-lived in the environment.<sup>102</sup>
95. Proper erosion control methods and BMPs will be used during construction to minimize impacts associated with fugitive dust. Post-construction, the potential impacts from the corona effect are limited and not anticipated to impact air quality. No additional mitigation measures will be necessary.<sup>103</sup>

#### *Water Quality and Water Resources*

96. The Proposed Route is located within the Blue Earth River and Watonwan River watersheds. There is one public water course along the Proposed Route

---

<sup>99</sup> Application at p. 33.

<sup>100</sup> EA at p. 45.

<sup>101</sup> *Id.* at p. 49.

<sup>102</sup> Application at pp. 37-38.

<sup>103</sup> EA at p. 51.

– Cedar Creek. Cedar Creek crosses the Proposed Route at two locations on the eastern end of the Proposed Route, and parallels the Route for approximately 0.3 miles. Cedar Creek is a perennial stream along this stretch. Federal Emergency Management Agency Flood Insurance Rate Maps indicate a floodplain along Cedar Creek. There are no PWI basins along the Proposed Route.<sup>104</sup>

97. There are two national wetlands inventory (“NWI”) mapped wetlands totaling 0.5 acres within the Proposed Route. These wetlands are drained temporarily flooded emergent wetlands. A 3.96-acre semi-permanently flooded emergent wetland (“PEMF”) is just south of the Proposed Route on its western end. Inspection of aerial photographs indicates that wetland is located in a cropped field. ~~There is also wetland along Cedar Creek, which crosses the Proposed Route as discussed above.~~ ~~The wetland along Cedar Creek~~ is classified as R2UBGx, an excavated, low-gradient stream with an unconsolidated bottom, where surface water is present except in extreme drought.<sup>105</sup>
98. Impacts to water resources are expected to be minor. The transmission line will be designed to span wetlands and watercourses to the extent practicable. A short-term effect on water quality is possible during the Construction phase of the Project due to sedimentation.<sup>106</sup>
99. Formal field wetland delineations will be conducted along the Proposed Route prior to construction. If the Project will permanently or temporarily impact waters of the U.S., Minnesota public waters, jurisdictional waters, or 100-year floodplains, the Applicant will apply for the necessary permits prior to construction and will work with officials to minimize impacts. Prior to construction, a Storm Water Pollution Prevention Plan will be prepared to control sedimentation during construction, and a National Pollutant Discharge Elimination System permit will be obtained.<sup>107</sup>

#### *Flora (Plant life)*

100. The flora along the Proposed Route is primarily agricultural. Agricultural landscapes are dominated by plots of corn, soybeans, or oats.<sup>108</sup>
101. The Project will result in minimal temporary and permanent impacts to natural vegetation along the Proposed Route.<sup>109</sup>

---

<sup>104</sup> Application at p. 38.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

<sup>107</sup> *Id.*

<sup>108</sup> EA at p. 54.

<sup>109</sup> *Id.*

102. All areas disturbed due to construction activities would be restored to pre-construction contours. In non-cultivated areas, reseeded would occur in a timely manner using native, non-invasive plant species.<sup>110</sup>

#### *Fauna (Wildlife)*

103. In general, the wildlife encountered near the Proposed Route is adapted to agriculture and development. Commonly encountered wildlife species include white-tailed deer, raccoon, striped skunk, mallard, Canada goose, red-winged blackbird, common grackle, American crow, American robin, and introduced species such as house sparrow, house finch, rock pigeon, ring-necked pheasant, and European starling.<sup>111</sup>
104. The Applicant conducted a Tier 1 and 2 analysis of the Odell Wind Farm, which includes the Proposed Route, including an inventory of existing biological resources, native prairie, and wetland areas. Tier 3 avian and bat surveys have also been completed.<sup>112</sup>
105. The greatest risk of impact to wildlife from the Project is associated with injury or death of bird species from collisions with or electrocution by the transmission line. Typically these impacts involve raptors, waterfowl, or other large birds. Minor displacement impacts may be associated with the construction of the Project, but these will be temporary in nature. The Applicant does not anticipate any long-term population-level impacts.<sup>113</sup>
106. The Project will be constructed according to the Avian Power Line Interaction Committee (“APLIC”) recommended safety standards in order to reduce avian collisions and electrocution. The Applicant will work with the EERA, DNR, and the U.S. Fish and Wildlife Services (“USFWS”) to identify any areas that may require marking of the transmission line to reduce the likelihood of collision. The Applicant prepared a draft Avian and Bat Protection Plan (“ABPP”) for the Odell Wind Farm and included measures related to the Project. ~~In relevant part, the~~The ABPP states that transmission structures will not be located within wetland areas to the extent feasible and whenever avoidance of wetland areas is not feasible, flight diverters will be installed on portions of above-ground transmission lines crossing those areas.<sup>114</sup>

#### *Rare and Unique Natural Resources*

---

<sup>110</sup> *Id.*

<sup>111</sup> Application at p. 41.

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

107. The Minnesota NHIS, DNR, and USFWS have been consulted to identify potential rare species in or near the Proposed Route. The NHIS identified no records of rare or unique national resources within one mile of the Proposed Route. The Minnesota Biological Survey (“MBS”) has completed a survey of this area for native plant communities. There are no identified MBS sites within one mile of the Proposed Route.<sup>115</sup>
108. The USFWS ~~considers the~~ has identified Poweshiek skipperling’s range and proposed Critical habitat to include areas within Cottonwood County, and the prairie bush clover range extends into Cottonwood, Jackson, and Martin Counties, to possibly be within the range of the Project. The Poweshiek skipperling is ~~a federal candidate~~ currently proposed to be listed as Endangered species under the Endangered Species Act (“ESA”) and state special concern species, which is found in native prairie remnants. The prairie bush clover is a federal and state threatened species typically found in dry prairie sites. There are no known prairie sites within one mile of the Proposed Route.<sup>116</sup>
109. Three state special concern species (trumpeter swan, Franklin’s gull, and American white pelican) were observed within the Odell Wind Farm Project during the Tier 3 surveys. None of these species are protected by the federal ESA. Additionally, bald eagles, which are federally-protected under the Bald and Golden Eagle Protection Act, were observed during Tier 3 surveys. Both the trumpeter swan and bald eagle observations were from the northwestern portion of the Odell Wind Farm Project site, away from the Proposed Route.<sup>117</sup>
110. Due to the predominating agricultural habitat along and adjacent to the Proposed Route, impacts to rare and unique natural resources are expected to be minimal. The greatest potential for impact is the possibility that large birds will collide with the transmission line.<sup>118</sup>
111. The Project has been sited away from known records of rare and unique natural resources, including native habitat. The Applicant will construct the Project according to APLIC-recommended safety standards to reduce the potential for avian collisions and electrocution. If impacts to threatened or endangered species are identified, the Applicant will work with regulatory agencies to identify appropriate avoidance, minimization, and mitigative measures.<sup>119</sup>

#### *Costs of Construction, Operation, and Maintenance*

---

<sup>115</sup> *Id.* at p. 42.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.* at p. 43.

<sup>118</sup> EA at p. 55 and 57.

<sup>119</sup> Application at p. 43.

112. The estimated cost for 9.5 miles of transmission line between the Odell Wind Farm Substation and the Woad Hill Substation is \$3.5 million. The estimated cost of the Woad Hill Substation is \$2 million.<sup>120</sup>
113. Operation and maintenance costs for the transmission line will be nominal in the initial years of operation since the line will be new and minimal maintenance is required. Annual operation and maintenance costs for 115 kV transmission lines in the Upper Midwest are typically \$300 to \$600 per mile of transmission right-of-way. The principal operations and maintenance cost will be incurred through scheduled inspections which will be performed monthly by either truck or fixed-wing aircraft.<sup>121</sup>

#### *Interference*

114. Corona from transmission line conductors can generate electromagnetic “noise” in the radio and television frequency range. This noise can cause interference with the reception of these signals depending on the frequency and strength of the signal.<sup>122</sup>
115. AM radio frequency interference typically occurs immediately under a transmission line and dissipates rapidly to either side. If radio interference from transmission line corona does occur, satisfactory reception from AM radio stations can be restored by appropriate modification of (or addition to) the receiving antenna system.<sup>123</sup>
116. While interference with TV signal and two-way mobile radio is not expected, if interference issues arise, the Applicant will work with affected parties to correct the problem.<sup>124</sup> Interference with FM radio is generally not a problem because of the excellent interference rejection properties inherent in FM broadcast band.<sup>125</sup>

#### *Certificate of Need*

117. The Project is exempt from Certificate of Need (“CN”) requirements because it does not meet the ~~voltage or~~ length requirements of a “large energy facility” under Minnesota Statutes § 216B.2421. While the 9.5 mile, 115 kV Project is greater than 100 kV, it is less than 10 miles in length and does not cross a state border. Therefore, a CN is not required for the Project.<sup>126</sup>

### **Summary of Human and Environmental Impacts and Commitment of Resources**

---

<sup>120</sup> *Id.* at p. 5.

<sup>121</sup> *Id.* at 6.

<sup>122</sup> EA at p. 31.

<sup>123</sup> *Id.*

<sup>124</sup> *Id.* at p. 32.

<sup>125</sup> *Id.*

<sup>126</sup> Application at p.4.

118. The Proposed Route has human and environmental impacts, some of which are unavoidable if the Project is permitted and built. The Proposed Route is not expected to cause an irreversible or irretrievable commitment of resources, except for the use of water for dust abatement during construction and the commitment of labor and fiscal resources to develop and build the Project.<sup>127</sup>
119. The Proposed Route minimizes human and environmental impacts to the extent practicable.
120. The Proposed Route is 9.5 miles long and does not require a Certificate of Need.
121. The Proposed Route shall include the additional route area proposed by the Applicant.<sup>128</sup>
122. The Proposed Route is feasible and should cause minimal economic and environmental impact due to placement of the route along the existing ROW.

#### **Applicable Statutory Conditions**

123. Minn. Stat. § 216B.243, subd. 2, states that no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission. Minn. Stat. § 216B.2421, subd. 2(3) defines a “large energy facility” as any high voltage transmission line with a capacity of 100 kV or more with more than ten miles of length or that crosses a state line.
124. Minn. Stat. § 216E.03, subd. 7, and Minn. R. 7850.4100 provide considerations in designating sites and routes and determining whether to issue a permit for a large electric power generating plant or a high-voltage transmission line.
125. Minn. Stat. § 216E.02, subd. 2 provides that questions of need, including size, type, and timing; alternative system configurations; and voltage must not be included in the scope of environmental review conducted under this chapter.

Based on the Findings of Fact the Commission makes the following:

#### **CONCLUSIONS OF LAW**

126. Any of the foregoing Findings more properly designated as Conclusions are hereby adopted as such.
127. The Public Utilities Commission has jurisdiction over the subject matter of this proceeding pursuant to Minn. Stat. § 216E.03, subd. 2.

---

<sup>127</sup> EA at p. 63.

<sup>128</sup> Route Modification

128. The project qualifies for review under the alternative permitting process of Minn. Stat. § 216E.04 and Minn. R. 7850.2800.
129. The Applicant, the Minnesota Department of Commerce, and the Public Utilities Commission have complied with all procedural requirements required by law.
130. The Minnesota Department of Commerce has completed an environmental assessment of this project as required by Minn. Stat. § 216E.04, subd. 5, and Minn. R. 7850.3700.
131. The Public Utilities Commission has considered all the pertinent factors relative to its determination of whether a route permit should be approved as required by Minn. Stat. § 216E.03, subd. 7, and Minn. Rule 7850.4100.

### **RECOMMENDATION**

132. The Commission should conclude that all relevant statutory and rule criteria necessary to obtain a site permit have been satisfied and that there are no statutory or other requirements that preclude granting a route permit based on the record.
133. The Commission should grant Odell Wind Farm, LLC a route permit to construct approximately 9.5 miles of new overhead 115 kV transmission line between the proposed project substation for the Odell Wind Farm and the proposed Woad Hill Substation and to construct the Woad Hill Substation.
  - a. Approximately 9.5 miles of new overhead 115 kV transmission line between the proposed project substation for the Odell Wind Farm and the proposed Woad Hill Substation. The Project will extend from the new Odell Wind Farm Substation, located in Section 32 of Mountain Lake Township in Cottonwood County, to the new Woad Hill Substation, in Section 16 of Cedar Township in Martin County. The HVTL line originates at the Odell Wind Farm Substation and heads east along County Highway 17 to Jackson County Highway 85/600th Avenue. The Project then continues south for approximately one mile. The Project then turns to run east along Jackson County's 930th Street where, after approximately one mile, it crosses into Martin County and continues east along 240th Street for approximately two miles until the intersection of 240th Street and 30th Avenue. The Project turns South for the final time on 30th Avenue, ending approximately one and a half miles south at the proposed Woad Hill Substation at the intersection of 30th Avenue and 230th Street in Martin County. The route width for the transmission line is between 150 and 600 feet. For the majority of the Proposed Route, the route width is 150 feet extending from the road centerline. In Sections 1 and 12 of T104 R34 in Jackson County, the route width is 300 feet,

150 feet on each side of the road centerline. In Sections 6 and 7 of T104 R33 in Martin County, the route width is 600 feet; and,

- b. The Woad Hill Substation, which will be a 345/115 kV substation on the Lakefield Generation-Fieldon segment of Xcel Energy's Lakefield Junction-Wilmarth 345 kV transmission line. The Woad Hill Substation will be located in section 16 of Cedar Township in Martin County at the intersection of 230th Street and 30th Avenue, away from the eastern portion of the proposed location allowing for a natural vegetative buffer between the substation and Cedar Creek, with the final configuration determined during discussions and negotiations between the Applicant and Xcel Energy.
- 134. That the standard route permit conditions should be incorporated into the route permit, unless modified herein.
  - 135. That the Applicant be required to take those actions necessary to implement the Commission's orders in this proceeding.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE MINNESOTA PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER OF AUTHORITY WHICH MAY ADOPT OR DIFFER FROM THE FOLLOWING RECOMMENDATION.

Based on the foregoing Findings of Fact, Conclusions of Law, and the record in this proceeding, the Administrative Law Judge makes the Recommendations set forth above in this Report.

Dated: \_\_\_\_\_, 2014

50809946\_6

---

Steven M. Mihalchick  
Administrative Law Judge