

July 18, 2018

**VIA ELECTRONIC FILING**

The Honorable James E. LaFave  
Minnesota Office of Administrative Hearings  
PO Box 64620  
Saint Paul, MN 55164-0620

**Re: In the Matter of the Applications of Flying Cow Wind, LLC for a Certificate of Need and Site Permit for the up to 152 MW Bitter Root Wind Project and Associated Facilities in Yellow Medicine County, Minnesota.**

**MPUC Docket Nos. IP-6984/CN-17-676, IP-6984/WS-17-749  
OAH Docket No. 60-2500-35035**

Dear Judge LaFave:

Pursuant to Your Honor's July 18, 2018 Amended Scheduling Order, Flying Cow Wind, LLC ("FCW") respectfully submits for your consideration: (1) FCW's comments on certain permit conditions set forth in the Draft Site Permit, and (2) FCW's Proposed Findings of Fact, Conclusions of Law and Recommendations on the LWECS Site Permit.

With respect to the Draft Site Permit, FCW requests that Section 6.1, which pertains to the project's use of an Aircraft Detection Lighting System ("ADLS"), be modified as set forth below, with underlined text to be added and struck-through text to be deleted:

- To mitigate potential effects of night-time aviation lighting, the Permittee shall, subject to applicable state and federal approvals or determinations, install an Aircraft Detection Lighting System (ADLS), ~~which provides coverage for the Bitter Root Wind Project to mitigate the aesthetic and visual effects of the FAA's night time aviation lighting requirements.~~ In the event ADLS is not approved for the Project, the Permittee shall install such alternative night-time aviation lighting design as may be approved for the Project by applicable state and federal agencies.

These changes are necessary because the FAA has not yet completed the project-specific review and approval to utilize ADLS at the Bitter Root site. If FAA does not grant approval, FCW agrees to install an alternative system approved by applicable agencies.

In addition, FCW is willing to agree with the Laborers District Council of Minnesota and North Dakota to include a condition in the site permit that requires FCW to report on hiring of local construction workers. However, FCW believes that quarterly reporting and reporting of multiple metrics is unnecessary and onerous, and therefore offers the following changes:

- The Permittee shall file ~~quarterly~~ a report with the Commission at the time of the pre-operation meeting ~~within 45 days of the end of the quarter~~ regarding construction workers that participated in construction of the project. The report ~~Reports~~ shall include a summary of the Permittee's efforts to hire local construction workers and the percentage of construction workers that participated in construction of the project ~~(a) the gross number of hours worked by or full time equivalent workers who were~~ are Minnesota residents, as defined in Minn. Stat. 290.01, Subd. 7, ~~during the quarter in which they participated in construction of the project~~ or whose permanent residence is; ~~(b) the gross number of hours worked by or full time equivalent workers of people who live in other states but are within 150 miles of the project~~ during construction of the project; and ~~(c) total gross hours or full time equivalent workers.~~ Permittee shall work with its contractor to determine suitable reporting metrics. ~~Reports shall begin with the commencement of site construction and continue until completion of site restoration.~~

FCW appreciates the opportunity to file these brief comments and the attached Proposed Findings of Fact, Conclusions of Law, and Recommendations. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Stinson Leonard Street LLP



Andrew J. Gibbons

AJG:SLS

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

In the Matter of the Application of Flying  
Cow Wind, LLC for a Certificate of  
Need for the 150 MW Large Wind  
Energy Conversion System in Yellow  
Medicine County, Minnesota

OAH Docket No. 60-2500-35035  
MPUC Docket No. IP-6984/CN-17-676  
MPUC Docket No. IP-6984/WS-17-749

In the Matter of the Application of Flying  
Cow Wind, LLC for a Site Permit for the  
up to 150 MW Large Wind Energy  
Conversion System in Yellow Medicine  
County, Minnesota

**FLYING COW WIND, LLC's  
PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW,  
AND RECOMMENDATIONS**

**July 18, 2018**

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On Behalf of  
Flying Cow Wind, LLC

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**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

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<i>In the Matter of the Application of Flying Cow Wind, LLC for a Certificate of Need for the 152 MW Large Wind Energy Conversion System in Yellow Medicine County, Minnesota.</i>	)	OAH Docket No. 60-2500-35035
	)	MPUC Docket No. IP-6984/CN-17-676
	)	MPUC Docket No. IP-6984/WS-17-749
	)	
	)	<b>PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION</b>
<i>In the Matter of the Application of Flying Cow Wind, LLC for a Site Permit for the up to 152 MW Large Wind Energy Conversion System in Yellow Medicine County, Minnesota.</i>	)	
	)	
	)	
	)	

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This matter was assigned to Administrative Law Judge James E. LaFave (“ALJ”) to conduct a public hearing on the Site Permit Application<sup>1</sup> and Certificate of Need Application<sup>2</sup> of Flying Cow Wind, LLC (“Flying Cow Wind” or “Applicant”) for a 152 megawatt (“MW”) Large Wind Energy Conversion System (“LWECS”) in Yellow Medicine County (“Project”). The Minnesota Public Utilities Commission (“Commission”) also requested that the ALJ prepare Findings of Fact, Conclusions of Law, and Recommendations on the merits of the Site Permit Application and provide recommendations, if any, on conditions and provisions for the proposed Site Permit.

A public hearing was held on June 28, 2018 at 6:00 p.m. at the Canby Elementary School, 601 4<sup>th</sup> Street W, Canby, Minnesota, 56220.

Andrew Gibbons at Stinson Leonard Street LLP, Michelle Matthews, Development Manager, Renewable Energy Systems Americas, Inc. (“RES”), Sean Flannery, Director of Permitting at RES, Brian Lammers, Regional Vice President Business Development for RES, Nick Berzins, Senior Project Manager for RES, and Kristjan Varnik, Project Engineer at DNV GL appeared on behalf of Flying Cow Wind.

Cezar Panait, Energy Facilities Planning, appeared on behalf of the Commission.

William Storm, Environmental Review Manager, appeared on behalf of the Department of Commerce’s (“Department”) Energy, Environmental Review and Analysis unit (“EERA”).

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<sup>1</sup> Exhibit (“Ex.”) 202 (Site Permit Application for a Large Wind Energy Conversion System (“Site Permit Application”).

<sup>2</sup> Exhibit 201 (Application for a Certificate of Need for a Large Wind Energy Conversion System (“CN Application”).

Kevin Pranis, Marketing Manager for the Laborers District Council of Minnesota and North Dakota (“Intervenor”) appeared on behalf of Intervenor.

### **STATEMENT OF ISSUE**

Has Flying Cow Wind met the criteria to receive a Site Permit for the proposed Project under Chapter 216F of the Minnesota Statutes and Chapter 7854 of the Minnesota Rules?

### **SUMMARY OF RECOMMENDATION**

The ALJ concludes that Flying Cow Wind has satisfied the applicable legal requirements and, accordingly, recommends that the Commission grant a Site Permit for the Project, subject to the conditions discussed below.

Based on the evidence in the record, the ALJ makes the following:

### **FINDINGS OF FACT**

#### **I. PARTIES AND PARTICIPANTS**

1. Flying Cow Wind is an affiliate of Renewable Energy Systems Americas Inc. (“RES”).<sup>3</sup>

2. RES, through its affiliates, develops renewable energy projects throughout the United States and Canada, and is one of the top renewable energy companies in North America. RES designs, constructs, and operates its facilities in an environmentally-sound and responsible manner. RES developed and constructed the 200 MW Pleasant Valley Wind Farm in Dodge and Mower counties, Minnesota, which achieved substantial completion in 2015.<sup>4</sup>

3. EERA is authorized by the Commission to hold public information meetings, to collect and analyze Flying Cow Wind’s Site Permit Application, and to provide a summary, analysis, and recommendation for the Commission’s review.

4. Intervenor is a democratic labor organization that represents construction workers and public employees in Minnesota and North Dakota, and is affiliated with the Laborer’s International Union of North America.<sup>5</sup>

#### **II. PROCEDURAL SUMMARY**

1. On October 19, 2017, Flying Cow Wind filed a Certificate of Need Application (“CN Application”) with the Commission for the Project, an up to 152 MW LWECS to be

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<sup>3</sup> Exhibit (“Ex.”) 202 at 1 (Site Permit Application for a Large Wind Energy Conversion System (“Site Permit Application”).

<sup>4</sup> *Id.* at 2.

<sup>5</sup> Ex. 501 at 1 (Petition for Intervention and Contested Case Request (“Contested Case Request”).

located in Yellow Medicine County, Minnesota.<sup>6</sup> The CN Application was filed pursuant to Minnesota Statutes § 216B.243 and Minnesota Rules chapter 7849.

2. On October 26, 2017, EERA filed comments recommending that the Commission accept the CN Application as complete and that the Commission evaluate the Petition using its comment process.<sup>7</sup>

3. On November 2, 2017, the Commission issued a Notice of Comment Period, requesting comment on whether the CN Application contained the information required under Minnesota Rules 7849.0240, 7849.0250, and 7849.0270 to 7849.0340; whether the Commission should treat the CN Application as complete; the procedural treatment that the Commission should direct for review of the CN Application; and whether there were any other issues or concerns related to the CN Application.<sup>8</sup> The Notice established an initial comment deadline of November 22, 2017 and a reply comment deadline of December 4, 2017.<sup>9</sup>

4. The Commission thereafter received comments opposed to the Project from people living close to its proposed location.<sup>10</sup>

5. On November 9, 2017, Flying Cow Wind filed the Site Permit Application with the Commission to construct and operate the Project.<sup>11</sup> The Site Permit Application was filed pursuant to Minnesota Statutes § 216F.04 and Minnesota Rules chapter 7854.

6. On November 28, 2017, the Commission issued a Notice of Comment Period requesting comment on whether the Site Permit Application contained the information required under Minnesota Rules part 7854.0500; whether there are any contested issues of fact with respect to the representations made in the Site Permit Application; and whether the Site Permit Application should be referred to the Office of Administrative Hearings.<sup>12</sup> The Notice established an initial comment deadline of December 19, 2017 and a reply comment deadline of December 26, 2017.<sup>13</sup>

7. On December 8, 2017, the Commission issued a Notice of Commission Meeting scheduling a meeting for December 21, 2017 to address (1) whether to accept the CN Application as substantially complete; (2) whether the Commission should direct that the CN Application be evaluated using the informal review process or should instead refer the application to the Office of Administrative Hearings for a contested case proceeding; and (3)

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<sup>6</sup> Ex. 201 (CN Application).

<sup>7</sup> Ex. 402 (EERA Comments on Completeness)

<sup>8</sup> Ex. 305 (Notice of Comment Period).

<sup>9</sup> *Id.*

<sup>10</sup> *See* Exs. 309, 310, 312, 314 (Public Comments).

<sup>11</sup> Ex. 202 (Site Permit Application).

<sup>12</sup> Ex. 300 (Notice of Comment Period).

<sup>13</sup> *Id.*



whether the Commission should vary the time limits of its rules that relate to the CN Application Completeness and the date of the information/ER scoping meeting.<sup>14</sup>

8. On December 19, 2017, EERA filed comments recommending that the Commission accept the Site Permit Application as complete and issue a variance to Minn. R. 7854.0800, establishing the timeline for rendering a preliminary determination on issuing a site permit.<sup>15</sup>

9. The Commission also received comments opposed to the Project from people living close to its proposed location.<sup>16</sup>

10. On December 21, 2017, the Commission met to consider the items identified in the December 8, 2017 Notice of Commission Meeting regarding the CN Application.<sup>17</sup> The Commission voted to, in part, (1) accept the CN Application as substantially complete; (2) direct that the informal review process be used to develop the record; (3) delegate its administrative authority, including timing issues, to its Executive Secretary; (4) ask the Minnesota Department of Commerce to continue studying the issues, and to state through testimony or comment its position on the reasonableness of granting a Certificate of Need; (5) direct Flying Cow Wind to facilitate in every reasonable way the continued examination of issues related to this docket by Department of Commerce and Commission staff; (6) direct Flying Cow Wind to place a print or electronic copy of its application in the government center or public library located closest to the proposed project site; (7) direct Flying Cow Wind to provide notice of the hearings; and (8) vary Minnesota Rules 7849.0200, Subp. 5 and 7849.1400, Subp. 3 to extend the timelines contained in those rules.<sup>18</sup>

11. On December 22, 2017, the Commission issued a Notice of Commission Meeting scheduling a meeting for January 4, 2018 to address (1) whether to accept the Site Permit Application as substantially complete; (2) what procedural process to authorize for evaluation of the Site Permit Application; and (3) whether to vary the time limits of its rules that relate to application completeness and draft site permit issuance.<sup>19</sup>

12. On December 26, 2017, Flying Cow filed reply comments (1) concurring with EERA's recommendation that the Commission accept the Site Permit Application as complete and issue a variance to Minn. R. 7854.0800, and (2) requesting a variance to Minn. R. 7854.0600, subp. 3, regarding distribution of copies of the application.

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<sup>14</sup> Ex. 307 (Notice of Commission Meeting).

<sup>15</sup> Ex. 100 (Comments & Recommendations on SPA Completeness)

<sup>16</sup> Exs. 309, 310, 312, 314, 319, 320, 324, 329 (Public Comments).

<sup>17</sup> See Ex. 315 (Order Accepting Application as Substantially Complete and Directing the Use of Informal Review Process)

<sup>18</sup> *Id.*

<sup>19</sup> Ex. 301 (Notice of Commission Meeting).

13. On January 4, 2018, the Commission met to consider the items identified in its December 22, 2017 Notice of Commission Meeting regarding the Site Permit Application.<sup>20</sup> The Commission voted to, in part, (1) accept the Site Permit Application as substantially complete; (2) refer the Site Permit Application for an administrative law judge from the OAH to preside over a public hearing and prepare a summary of public comments; (3) request that administrative law judge prepare a report setting forth findings of fact, conclusions of law, and recommendations on the merits of the Site Permit Application and provide recommendations, if any, on conditions and provisions of the proposed site permit; (4) vary Minnesota Rule 7854.0600, Subp. 1 and Minnesota Rule 7854.0800, Subp. 1 to extend the timeliness contained in those rules; (5) vary Minnesota Rule 7854.0600, subp. 3. to permit Flying Cow Wind to provide 1 to extend the 45-day time frame for Commission decision on the issuance of a Draft Site Permit; and (6) address other administrative matters.<sup>21</sup>

14. On January 12, 2018, the Commission incorporated its December 21, 2017 decision regarding the CN Application into its Order Accepting Application as Substantially Complete and Directing the Use of Informal Review Process.<sup>22</sup>

15. On January 30, 2018, the Commission incorporated its January 4, 2018 decision regarding the Site Permit Application into its Order Accepting Application, Establishing Procedural Framework, and Varying Rules.<sup>23</sup>

16. On February 2, 2018, the Commission and EERA issued a Notice of Public Information and Scoping Meeting scheduling a public meeting for February 27, 2018.<sup>24</sup> The Notice of Public Information and Scoping Meeting solicited comments on (1) the potential human and environmental impacts of the Project that should be considered in the environmental document and draft site permit for the Project; (2) the possible methods to minimize, mitigate, or avoid potential impacts of the Project; (3) unique characteristics of the proposed site or the Project that should be considered; and (4) missing or mischaracterized items in the Site Permit Application or the CN Application.<sup>25</sup> The Notice established a March 19, 2018 deadline for written comments.<sup>26</sup>

17. Public comments were thereafter submitted on the scope of the Environmental Report.<sup>27</sup>

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<sup>20</sup> Ex. 331 (Minutes – January 4, 2018 Agenda Meeting)

<sup>21</sup> *Id.*

<sup>22</sup> Ex. 315 (Order Accepting Application as Substantially Complete and Directing the Use of Informal Review Process)

<sup>23</sup> Ex. 316 (Order Accepting Application, Establishing Procedural Framework and Varying Rules).

<sup>24</sup> [Ex. 317 \(Notice of Public Information and Scoping Meeting\)](#).

<sup>25</sup> *Id.*

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

<sup>27</sup> Exs. 104, 105 (Public Comments Received on the Scope of the Environmental Report)

18. On February 7, 2018 and on February 14, 2018, Flying Cow Wind published newspaper notice of the Public Information and Scoping Meeting.<sup>28</sup>

19. On February 8, 2018 and February 9, 2018, Flying Cow Wind sent affected landowners, local units of government, and persons listed on the service list a letter and attachments containing information about the Project, including the text of the Site Permit Application and instructions on how to obtain electronically the appendices to the Site Permit Application.<sup>29</sup>

20. On February 9, 2018, Flying Cow Wind sent copies of its CN Application, Site Permit Application, and Notice of Public Meeting to applicable local government units, pursuant to Minnesota Rule 7849.0200, Subp. 2.<sup>30</sup>

21. On February 27, 2018, the Commission and Department held a public information meeting at the Canby Elementary School, 601 4<sup>th</sup> Street W, Canby, Minnesota, 56220, at 6:00 p.m.<sup>31</sup> The Commission, EERA, and Flying Cow Wind made presentations at the public information meeting.<sup>32</sup> Seventeen members of the public commented during the public information meeting, and forty-two written comments were received during the comment period.<sup>33</sup> Four state agencies also submitted written comments: the Minnesota Pollution Control Agency (“MPCA”), Minnesota Department of Transportation (“MNDOT”), Minnesota Department of Natural Resources (“MNDNR”), and Minnesota Department of Commerce – Division of Energy Resources (“DOC-DER”).<sup>34</sup>

22. Based on the comments received at the public information meeting, Flying Cow Wind committed to using an Aircraft Detection Lighting System (“ADLS”) if approved by the Federal Aviation Administration (“FAA”).<sup>35</sup>

23. On March 5, 2018, the ALJ issued a Notice of Prehearing Conference scheduling a prehearing conference for March 16, 2018 at 1:30 pm in the small hearing room at the offices of the Minnesota Public Utilities Commission, 350 Metro Square Building, 121 Seventh Place East, St. Paul, Minnesota 55101.<sup>36</sup>

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<sup>28</sup> Ex. 204 (Affidavit of Publication).

<sup>29</sup> Ex. 205 (Affidavit of Mailing).

<sup>30</sup> Affidavit of Mailing (Feb. 16, 2018), eDocket ID 20183-140721-02

<sup>31</sup> [Ex. 317 \(Notice of Public Information and Scoping Meeting\)](#).

<sup>32</sup> Ex. 318 (Public Information and Scoping Meeting Presentation).

<sup>33</sup> Ex. 108 (EERA Comments and Recommendations on DSP).

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

<sup>35</sup> Ex. 206 (Comments of Flying Cow Wind Related to Aircraft Detection Lighting System).

<sup>36</sup> Ex. 600 (Notice of Prehearing Conference).

24. On March 12, 2018, EERA filed comments recommending that the Commission approve the CN Application.<sup>37</sup>

25. On March 14, 2018, Intervenors filed a Request for Contested Case Hearing and Petition for Intervention seeking to intervene as a party to the proceedings and requesting that a contested case be held for the proceedings.<sup>38</sup>

26. On March 15, 2018, Flying Cow Wind filed a proposed procedural schedule for the joint proceeding with the ALJ on the Site Permit Application and CN Application.<sup>39</sup>

27. On March 20, 2018, Flying Cow Wind filed a Notice of Addendum to Site Permit Application to inform the Commission of its plans to file an addendum to the Site Permit Application (“Site Permit Addendum”) with a revised project layout and associated information.<sup>40</sup>

28. On March 21, 2018, Flying Cow Wind filed a response to Intervenor’s Contested Case Request, opposing Intervenor’s request for a contested case hearing.<sup>41</sup> Flying Cow Wind did not object to Intervenor’s participation in the matters, but noted that formal intervention is unnecessary in light of the procedural devices already available to Intervenor under the specific review process ordered by the Commission.<sup>42</sup> DOC-DER also filed a response to Intervenor’s Contested Case Request.<sup>43</sup> DOC-DER also opposed the request for a contested case, but took no position on Intervenor’s Petition to Intervene, but also noted that even without a contested case proceeding, Intervenor’s participation is readily allowed.<sup>44</sup>

29. On March 28, 2018, Intervenor filed a reply brief regarding its Contested Case Request.<sup>45</sup>

30. On March 28, 2018, the ALJ issued a Scheduling Order setting the date for a joint public hearing on the Site Permit Application and CN Application for May 31, 2018, and establishing the procedural schedule for various filings, notices, and comment periods.<sup>46</sup>

31. On March 28, 2018, Flying Cow Wind filed a Site Permit Addendum with a revised layout for the Project. The Site Permit Addendum proposed eliminating the use of the

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<sup>37</sup> Ex. 403 (EERA Comments)

<sup>38</sup> Ex. 501 (Request for Contested Case Hearing and Petition to Intervene (“Contested Case Request”).)

<sup>39</sup> Ex. 207 (Proposed Procedural Schedule).

<sup>40</sup> Ex. 208 (Notice of Addendum to Site Permit Application).

<sup>41</sup> Ex. 209 (Flying Cow Wind Response to Contested Case Request).

<sup>42</sup> *Id.*

<sup>43</sup> Ex. 404 (DOC-DER Response to Contested Case Request).

<sup>44</sup> *Id.*

<sup>45</sup> Ex. 500 (Intervenor’s Reply Brief to Contested Case Request).

<sup>46</sup> Ex. 601 (Scheduling Order).

Vestas V136 4.2MW turbines, increasing the number of proposed turbine locations to forty-four, increasing the number of alternate turbine locations to eight, and adjusting the original turbine locations based on the new turbine locations and land availability.<sup>47</sup>

32. On March 29, 2018, Flying Cow Wind filed corrected noise and shadow flicker reports, replacing the reports filed on March 28, 2018.<sup>48</sup>

33. On April 3, 2018, the Commission issued a Notice of Additional Comment Period extending the comment period to provide comments on the Project in response to the Site Permit Addendum.<sup>49</sup> The Notice of Additional Comment Period solicited comments on (1) the potential human and environmental impacts of the proposed revised Project scope that should be considered in the environmental document and draft site permit for the Project; (2) the possible methods to minimize, mitigate, or avoid potential impacts of the proposed revised Project; (3) unique characteristics of the proposed changes to the Project that should be considered; and (4) missing or mischaracterized items in the Site Permit Addendum.<sup>50</sup> The Notice established an April 13, 2018 deadline for written comments.<sup>51</sup> Sixteen additional written comments were received during the extended comment period, including a supplemental comment letter from the MNDNR.<sup>52</sup>

34. On April 5, 2018, the Commission requested permission to file a letter to provide background material and comments regarding the informal contested case review process and consideration of requests for contested cases as they applied to Flying Cow Wind's certificate of need proceeding. The ALJ granted the Commission's request, setting a deadline of April 6, 2018 for the Commission to file its comments.<sup>53</sup>

35. On April 6, 2018, the Commission filed a comment letter addressing procedural matters and providing background information and context regarding the informal review process and the appropriate timing of requests for contested cases during the examination of the merits of a certificate of need application in connection with Intervenor's Contested Case Request.<sup>54</sup> The Commission's comment letter did not comment on the merits of the Intervenor's Contested Case Request.<sup>55</sup>

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<sup>47</sup> Ex. 210 (Site Permit Addendum).

<sup>48</sup> Ex. 211 (Corrected Sound and Shadow Flicker Study Reports).

<sup>49</sup> Ex. 321 (Notice of Additional Comment Period).

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> Ex. 106 (Public Comments Received During Extended Comment Period).

<sup>53</sup> Ex. 602 (Order Granting Permission for Out of Time Filing).

<sup>54</sup> Ex. 323 (Commission Letter Regarding Procedural Matters).

<sup>55</sup> *Id.*

36. On April 6, 2018 Flying Cow Wind sent affected landowners, local units of government, and persons listed on the service list a letter, the Site Permit Addendum, and associated attachments.<sup>56</sup>

37. On April 18, 2018, EERA issued its Environmental Report Scoping Decision setting forth matters to be addressed in the Environmental Report to be issued for the Project.<sup>57</sup>

38. On April 19, 2018, EERA issued its comments and recommendations on the Site Permit Application, recommending that that Commission issue a Draft Site Permit, recommending a special condition to address the use of ADLS by the Project, and attaching a preliminary Draft Site Permit.<sup>58</sup>

39. On May 4, 2018 EERA filed the Environmental Report and attachments for the Project and issued a Notice of Availability of Environmental Report.<sup>59</sup>

40. On May 4, 2018, the Commission issued a Notice of Commission Meeting to be held on May 17, 2018 to determine whether the Commission should issue a Draft Site Permit for the Project.<sup>60</sup>

41. On May 7, 2018, the ALJ issued an Order on the Contested Case Request by Intervenors, denying Intervenor's request for a contested case hearing, and granting Intervenor's petition for intervention.<sup>61</sup>

42. On May 17, 2018, the Commission met to consider whether it should issue a Draft Site Permit for the Project.<sup>62</sup> The Commission voted to issue the preliminary Draft Site Permit proposed by EERA without modifications.<sup>63</sup>

43. On May 24, 2018, Flying Cow Wind filed a Motion to Amend the Scheduling Order.<sup>64</sup>

44. On May 25, 2018, the ALJ issued an Order Granting Flying Cow Wind's Motion to Amend the Scheduling Order, which cancelled the public hearing scheduled for May 31, 2018, and adopted an amended procedural schedule with a joint public hearing date of June 28, 2018.<sup>65</sup>

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<sup>56</sup> Ex. 212 (Landowner Mailing).

<sup>57</sup> Ex. 107 (Scoping Decision).

<sup>58</sup> Ex. 108 (EERA Comments and Recommendations on DSP).

<sup>59</sup> Exs. 109, 110 (Environmental Report and Notice of Availability of Environmental Report)

<sup>60</sup> Ex. 327 (Notice of Commission Meeting).

<sup>61</sup> Ex. 603 (Order on Contested Case Request).

<sup>62</sup> See Ex. 330 (Order).

<sup>63</sup> *Id.*

<sup>64</sup> Ex. 213 (Motion to Amend Scheduling Order).

45. On June 12, 2018, the Commission issued a Notice of Joint Public Hearing and a Notice of Draft Site Permit Availability.<sup>66</sup> The Notice provided that a public hearing on the Application would be held before the ALJ on June 28, 2018, and it solicited written comments on (1) whether the Commission should issue a Certificate of Need and a Site Permit for the Project; (2) whether the Project is needed and in the public interest; (3) the costs and benefits of the Project; (4) the environmental and human impacts of the Project and how those impacts can be addressed; and (5) whether there are other Project-related issues or concerns.<sup>67</sup> The Notice established a July 18, 2018 deadline for written comments.<sup>68</sup> The Notice was published in the Minnesota Environmental Quality Board EQB Monitor on June 18, 2018.<sup>69</sup>

46. On June 22, 2018, Flying Cow Wind filed visual simulations of the Project from three different locations near Lake Cochrane at the request of EERA.<sup>70</sup>

47. On June 26, 2018, Flying Cow Wind filed a letter responding to comments from MNDNR and proposing to eliminate turbine locations T1, T20, and A10.<sup>71</sup>

48. On June 28, 2018, the ALJ presided over a joint public hearing on the Site Permit Application and CN Application in Canby, Minnesota. Approximately 68 members of the public attended the public hearing.<sup>72</sup> Commission staff, EERA staff, representatives from Flying Cow Wind, and a representative of Intervenor attended the public hearing. Approximately 19 members of the public spoke at the hearing.<sup>73</sup> Additional written comments from the public were received before the end of the comment period. Intervenor also filed written comments on July 10, 2018, requesting information regarding local labor practices of RES on two other wind projects.<sup>74</sup>

49. On July 6, 2018, Flying Cow Wind filed a Motion to Amend Scheduling order.<sup>75</sup>

50. On July 18, 2018, the ALJ granted the Motion to Amend Scheduling Order.<sup>76</sup>

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<sup>65</sup> Ex. 605 (Order Granting Flying Cow Wind's Motion to Amend the Scheduling Order ("Amended Scheduling Order")).

<sup>66</sup> Ex. 333 (Notice of Joint Public Hearing and Draft Site Permit Availability).

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> Ex. 334 (EQB Monitor Notice).

<sup>70</sup> Ex. 214 (Visual Simulations).

<sup>71</sup> Ex. 215 (Response to MNDNR).

<sup>72</sup> Ex. 806 (Public Hearing Sign-In Sheet).

<sup>73</sup> Public Hearing Transcript (Tr.) at 2-3 (June 28, 2018) (eDocket No. 20187-144799-01).

<sup>74</sup> Request for Information from Flying Cow, LLC (July 10, 2018), eDocket ID 20187-144641-02, -04, -06, -08.

<sup>75</sup> Motion to Amend Scheduling Order (July 6, 2018), eDocket ID 20187-144578-01.

<sup>76</sup> Order Granting Second Motion to Amend Scheduling Order (July 18, 2018), eDocket ID 20187-144987-01.

### III. DESCRIPTION OF THE PROJECT

5. The Project is to include a nameplate capacity of up to 152 MW, with up to 44 turbine sites (52 proposed turbine locations are included in the Project layout to allow for 8 alternate turbine locations). The Flying Cow Wind proposes to use the Vestas V136 3.45 MW. Permanent Project facilities will include the wind turbines and associated facilities, including a new collection substation (to be located in Deuel County, SD), an approximately 10-mile long 345 kilovolt (“kV”) high-voltage transmission line, 34.5 kV underground electrical collection lines, fiber optic communication cables, up to two permanent meteorological towers, gravel access roads, and an operations and maintenance facility.<sup>77</sup>

6. The wind turbines consist of a nacelle, rotor and blades, tower, and foundation. The rotor consists of three blades mounted to a rotor hub. The hub is attached to the nacelle, which houses the gearbox, generator, brake, cooling system, and other electrical and

mechanical systems. The turbine towers, on which the nacelle is mounted, consist of four sections manufactured from certified steel plates. The wind turbines’ freestanding 345-foot tubular towers will be connected by anchor bolts to an underground concrete foundation. A control panel inside the base of each turbine tower houses communication and electronic circuitry. Each wind turbine will be accessible via all-weather, aggregate-surfaced roads that will connect with public roads. The roads will be low-profile to allow farm equipment to cross.<sup>78</sup>

7. The turbine model proposed has an anticipated hub height of 345 feet (105 meters) and will measure 568 feet (173 meters) from the base of the tower to the tip of the upright blade.<sup>79</sup> The rotor diameter is 446 feet (135 meters).<sup>80</sup>

8. The electricity generated by each turbine is raised (stepped up) to power collection line voltage of 34.5 kV. The electricity is collected by a system of underground power collection lines within the Project Area. A fiber optic communication system will also be installed between each turbine site and the Project Substation. The fiber optic lines will provide communication between the wind turbines, Project Substation, and the O&M facility. All the collection system and fiber optic cables will terminate at the proposed Project Substation, where additional substation equipment will be installed to accommodate the proposed Project.<sup>81</sup>

9. The Project Substation will collect and interconnect approximately seven underground cable feeders in a straight bus configuration. The Project Substation will consist of switch gear, metering, transformers, electrical control and communications systems, and other

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<sup>77</sup> Site Permit Application at §5.

<sup>78</sup> Site Permit Application at §6.2.2.

<sup>79</sup> Site Permit Application at §6.2.1.

<sup>80</sup> Site Permit Application at §6.2.2.

<sup>81</sup> Site Permit Application at §6.3.



high voltage equipment needed to transform the electricity generated by the Project from 34.5 kV to 345 kV.<sup>82</sup>

10. The point of interconnection is Otter Tail Power's proposed Astoria Substation in Deuel County, SD. The Project includes a proposed aboveground 345 kV transmission line, approximately 10 miles in length to connect the Project Substation to the point of interconnection.<sup>83</sup>

11. The Project Substation and transmission line will be permitted through South Dakota Public Utilities Commission and Deuel County, as applicable.<sup>84</sup>

12. The turbines will have supervisor control and data acquisition (SCADA) communication technology to allow control and monitoring of the wind farm. The SCADA communications system permits automatic, independent operation and remote supervision, thus allowing the simultaneous control of many wind turbines.<sup>85</sup>

13. The Project is scheduled to begin construction in the first quarter of 2019, with an anticipated in-service and commercial operation date in fourth quarter of 2019, pending Commission and related approvals, completion of the interconnection process, and other development activities.<sup>86</sup>

#### **IV. SITE LOCATION AND CHARACTERISTICS**

14. The Project is located in southwestern Minnesota in Yellow Medicine County. The county is predominantly rural with an agricultural economic base. The Project includes portions of Florida, Fortier, and Norman townships and is situated in the southwestern corner of Yellow Medicine County.<sup>87</sup> There are approximately 108 homes located within the Project Area.<sup>88</sup>

15. The Project Area is approximately 22,888 acres. Flying Cow Wind initially reviewed an area of approximately 41,000 acres for critical issues and sensitive resources within which to site the Project. The initial footprint of the Project Area was revised numerous times, taking into account landowner participation, regulatory agency and public comments, airport needs and airspace concerns, efficient and effective use of wind energy, minimization of environmental impacts, and applicable setback requirements.<sup>89</sup>

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<sup>82</sup> *Id.* at §7.1

<sup>83</sup> *Id.* at §7.1

<sup>84</sup> *Id.* at §7.4

<sup>85</sup> *Id.* at §7.3.3

<sup>86</sup> *Id.* at §1

<sup>87</sup> Site Permit Application at §9.1.1

<sup>88</sup> *Id.* at §9.1.1

<sup>89</sup> *Id.* §5

16. The Project is located in a predominately agricultural area of southwestern Minnesota. Wind turbines and associated facilities are therefore primarily sited on agricultural lands. The Project Area consists of approximately 46.5% cropland and 26.2% pasture/grassland.<sup>90</sup> Approximately 82.19 acres (0.36% of the Project Area) will be permanently converted to non-agricultural land use.<sup>91</sup>

17. In designing the Project layout, the Flying Cow Wind incorporated the wind energy conversion facility siting criteria outlined in the Commission's Order Establishing General Wind Permit Standards, Docket No. E, G999/M-07-1102 (January 11, 2008) (MPUC General Permit Standards), DOC Site Permit Application Guidance, Yellow Medicine County Land Use and Related Resource Management Ordinance (Section XVI Renewable Energy, Setbacks Part 1.6 and Requirements and Standards Part 1.7), setback standards, and RES standards and best practices. Where setbacks differ for the same feature, the Flying Cow Wind uses the most stringent setback distance.<sup>92</sup>

18. The Project will include setbacks for (1) wind access buffer of five rotor diameters in the prevailing wind direction and three rotor diameters in the non-prevailing wind direction; (2) residences; (3) MPCA noise standard compliance; (4) public lands and public lands managed as grasslands; (5) USFWS grasslands and conservation easements; (6) USFWS wetland easements; (7) uninhabited structures; (8) public roads and trails; (9) microwave beam paths; (10) pipelines and wells; (11) railroads; and (12) communication towers.<sup>93</sup> Flying Cow Wind considered receptors in Minnesota and South Dakota in analyzing and applying identified setbacks.<sup>94</sup>

## V. WIND RESOURCE CONSIDERATIONS

19. Flying Cow Wind has collected data from three temporary meteorological monitoring stations within the Project Area. The earliest data collected within the Project Area is from January 2008.

20. The prevailing winds are generally north/south and the non-prevailing winds are generally east/west. Wind speeds are expected to be higher in the winter and lower in the summer. Monthly average wind speeds for the Project Area range from 5.96 meters per second (m/s) to 11.14 m/s.<sup>95</sup>

21. The internal array spacing is a minimum of three RD spacing in the non-prevailing direction and a minimum of five RD spacing in the prevailing direction, with up to 20% of the turbines spaced closer to each other.

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<sup>90</sup> *Id.* at §5

<sup>91</sup> Site Permit Addendum at 5.

<sup>92</sup> Site Permit Application at §6.1

<sup>93</sup> Site Permit Application at §6.1, Table 2

<sup>94</sup> *See, e.g.*, Site Permit Application at §§9.3.1, 9.4.5

<sup>95</sup> Site Permit Application at §10.1

22. The Project will have a nameplate generation capacity of up to 152 MW and a net capacity factor between 40 and 45%. Annual energy production will depend on the final layout.<sup>96</sup>

## **VI. WIND RIGHTS AND EASEMENT/LEASE AGREEMENTS**

23. Flying Cow Wind has approximately 17,196 acres of the 22,888 acres (79%) within the Project Area participating under land lease and wind easement or setback easement agreements.<sup>97</sup> All Project facilities will be constructed on leased land. The current set of land agreements is sufficient to accommodate construction and operation of proposed facilities and meet required buffers.<sup>98</sup>

## **VII. SUMMARY OF PUBLIC COMMENTS**

### **A. Public Information and Environmental Scoping Meeting**

24. On February 27, 2018, the Commission and Department held a public information meeting at the Canby Elementary School in Canby, Minnesota.<sup>99</sup> Approximately 100 persons attended the meeting. The Commission, EERA, and Flying Cow Wind made presentations at the public information meeting.<sup>100</sup> Fifteen members of the public commented during the public information meeting.<sup>101</sup>

25. Mr. Bob Pollock spoke in favor of issuing the certificate of need, referencing climate change. Mr. Pollock also expressed concern about preserving farmland, and referenced issues such as soil compaction, islanding of fields, the soil profile, and damage to tile. Finally, he expressed concerns regarding the complexity of the contracts between landowners and wind developers.<sup>102</sup>

26. Mr. Richard Hemish spoke in favor of the Project because it is renewable energy and bring resource to landowners, the townships, and the county.<sup>103</sup>

27. Mr. George Holborn expressed concern about negative impacts on residential property values, potential adverse health impacts from inaudible noise, including sleep disturbance.<sup>104</sup>

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<sup>96</sup> *Id.* at §11.6.2

<sup>97</sup> Site Permit Addendum at 3, Table 1

<sup>98</sup> Site Permit Application at §8

<sup>99</sup> Ex. 317 (Notice of Public Information and Scoping Meeting).

<sup>100</sup> Ex. 318 (Public Information and Scoping Meeting Presentation).

<sup>101</sup> Scoping Meeting Transcript (Tr.) at 2 (Feb. 27, 2018)(eDockets 20183-141194-01).

<sup>102</sup> Scoping Meeting Tr. at 34:24 – 38:3 (Bob Pollock).

<sup>103</sup> *Id.* at 38:8 – 14 (Richard Hemish).

<sup>104</sup> *Id.* at 38:20 – 43:1 (George Holborn).

28. Mr. Stu Frazeur, a farm grading contractor, commented that the proposed buried depth of collection lines at 42 inches is the same depth at which tile lines are located, and recommended a one-foot buffer between farmed grade lines and collection lines.<sup>105</sup>

29. Mr. Louis Miller commented in favor of the project, noting that all the Project information appears to be correct. He noted that Lake Cochrane residents could complain about a couple of towers, but noted the turbines are located east of the Lake and that east winds are rare. Mr. Miller further noted that Matt Wagner, the airport manager in Canby, flies to Lake Cochrane a couple of times a month, but Mr. Miller indicated it appears that there would still be an adequate flyway.<sup>106</sup>

30. Mr. Ron Antony commented in favor of the Project, noting the economic benefits to the county. Mr. Antony raised the issue of nighttime lighting of turbines for aviation, and questioned whether an ADLS could be utilized for this Project.<sup>107</sup>

31. Mr. Curtis Mulder, a Minnesota resident and Lake Cochrane property owner, commented on the use of ADLS in North Dakota, and noted that Lincoln County, Minnesota is also considering requiring the use of ADLS. Mr. Mulder requested that the ADLS be used for the Project. Mr. Mulder further noted that the site plans for the Project do not have a legend providing the necessary detail. Mr. Mulder further commented that using renewable energy is to make the world better, but impacts to places such as Lake Cochrane make it a loss. He noted that imposing a three mile setback would implicate turbines T1, T2, T3, T24 and possibly T5. He also noted that winds do come from the east and southeast, particularly in storms.<sup>108</sup>

32. Ms. Pat Meyer, a member of the Lake Cochrane Improvement Association and resident of Lake Cochrane, spoke to the history of the Lake Cochrane community, and requested that Lake Cochrane be protected from the Project.<sup>109</sup>

33. Mr. Ron Ruud, co-president of the Lake Cochrane Improvement Association and resident of Lake Cochrane, commented on the regional visitors to Lake Cochrane, and the Lake Cochrane Recreation Area. Mr. Ruud also requested that the three mile setback from Deuel County, South Dakota be applied to the Project, noting that Deuel County decided to impose the three mile setback due to sound, site, and property values. He requested that an ADLS be utilized for the Project. He commented that impacts on property values are a concern, and that it is common sense that property values are reduced when wind turbines are placed too close to a recreational area, and impacts increase with the uniqueness of the area. Mr. Ruud also raised the issue of avian impacts, and inquired about the comments of MNDNR on turbine locations.<sup>110</sup>

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<sup>105</sup> *Id.* at 43:17 – 44:7 (Stu Frazeur).

<sup>106</sup> *Id.* at 44:11 – 46:5 (Louis Miller).

<sup>107</sup> Scoping Meeting Tr.at 46:9 – 47:9 (Ron Antony).

<sup>108</sup> *Id.* at 48:12 – 51:20; 63:15 – 64:13; 73:20 – 74:1 (Curtis Mulder).

<sup>109</sup> *Id.* at 52:25 – 55:5 (Pat Meyer)

<sup>110</sup> *Id.* at 55:9 – 58:25; 66:22 – 67:3; 67:13-16; 67:18-24 (Ron Ruud).

34. Mr. Nate O'Reilly questioned what steps will be taken to ensure that construction jobs are filled with local workers, and questioned whether Flying Cow Wind would make a commitment to hire local workers or have a Site Permit condition regarding local hiring.<sup>111</sup>

35. Mr. Todd Pesek questioned whether the Commission is paid by Minnesota taxpayers. Mr. Pesek commented that the Commission should be concerned about Minnesota and jobs in Minnesota over the concerns of South Dakota residents.<sup>112</sup>

36. Mr. Roger Krueger noted his familiarity with wind projects, and noted the Blazing Star 1 and Blazing Star 2 projects came together well with workers from a 100-mile radius. He compared those projects to a project east of Ivanhoe, which had license plates in the parking lot representing many states.<sup>113</sup>

37. Mr. Kevin Pranis raised the issue of local workers, and asked for clarification on the practice of Flying Cow Wind and RES in hiring local workers. He further noted the local workforce is highly skilled in wind farm construction, and expressed that he hopes most of the construction jobs for the Project would be filled with local workers.<sup>114</sup>

38. Mr. Will Thomssen noted that he is a certified crane operator, and requested to be put to work on the Project.<sup>115</sup>

39. Ms. Gabriella Snortum questioned what the construction process would look like on a day-to-day basis.<sup>116</sup>

## **B. Written Comments in Environmental Scoping Comment Period**

40. On February 2, 2018, the Commission and EERA issued a Notice of Public Information and Scoping Meeting scheduling the public meeting for February 27, 2018, and soliciting comments on (1) the potential human and environmental impacts of the Project that should be considered in the environmental document and draft site permit for the Project; (2) the possible methods to minimize, mitigate, or avoid potential impacts of the Project; (3) unique characteristics of the proposed site or the Project that should be considered; and (4) missing or mischaracterized items in the Site Permit Application or the CN Application.<sup>117</sup> The Notice

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<sup>111</sup> *Id.* at 59:7 – 60:13 (Nate O'Reilly).

<sup>112</sup> *Id.* at 61:12 – 17; 62:13-18 (Todd Pesek).

<sup>113</sup> Scoping Meeting Tr. at 64:19 – 65:10 (Roger Krueger).

<sup>114</sup> *Id.* at 65:16 – 66:16 (Kevin Pranis).

<sup>115</sup> *Id.* at 70:25 – 71:6 (Will Thomssen).

<sup>116</sup> *Id.* at 71:10 – 19 (Gabriella Snortum).

<sup>117</sup> Ex. 317 (Notice of Public Information and Scoping Meeting).

established a March 19, 2018 deadline for written comments.<sup>118</sup> Forty-two written comments were received during the comment period.<sup>119</sup>

41. The MNDNR commented on the appropriate MNDNR contact (changing from Kevin Mixon to Cynthia Warzecha), edits to the Draft Bird and Bat Conservation Strategy Plan contained as an appendix to the Site Permit Application, and on the appropriateness of siting of specific turbines (T1 and T20).<sup>120</sup>

42. The MNDOT stated in its comments that wind farm construction work, including delivery/storage of structures, materials and/or equipment that may affect MNDOT right of way is of concern such that MNDOT should be involved in planning and coordinating such activities. Additionally, MNDOT stated that the site permit should include language specifying that the Permittee shall obtain all relevant permits from road authorities relating to the transport of oversize materials and equipment related to the project over public roads, as well as installation of facilities that may be proposed to occupy portions of public road rights of way.<sup>121</sup>

43. The MPCA commented on the need for additional information in the Draft Site Permit concerning the potential impacts to surface waters and floodplain resources, along with information on avoidance, minimization, and mitigation (BMPs) of said impacts.<sup>122</sup>

44. The DOC-DER recommended that the Commission find, with respect to the CN Application, that (1) Flying Cow Wind has met the criteria in Minnesota Rules 7849.0120A and shown that the probably result of denial would be an impact on the future adequacy, reliability, or efficiency of energy supply; (2) Flying Cow Wind has met each of the four criteria in Minnesota Rules part 7849.0120(B) and shown that a more prudent or reasonable alternative to the Project has not been demonstrated by a preponderance of the evidence; and (3) Flying Cow Wind has shown that the record of the Project does not demonstrate that the design, construction or operation of the Project or suitable modification will fail to comply with relevant policies, rules, and regulations of other states and federal agencies or local governments.<sup>123</sup>

45. Multiple commenters opposed the Project based on the potential impacts to Lake Cochrane. These commenters include lake residents, property owners with seasonal homes, representatives of the Lake Cochrane Improvement Association, and other concerned individuals. These commenters expressed concern regarding visual impacts on the natural setting, impacts on wildlife and waterfowl, noise concerns, concerns with shadow flicker, the use of sea planes on the lake, the visual impacts of night-time lighting, and negative impacts to

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<sup>118</sup> *Id.*

<sup>119</sup> Ex. 108 (EERA Comments and Recommendations on DSP).

<sup>120</sup> Comments of MNDNR (March 19, 2018) (eDockets 20183-141199-05).

<sup>121</sup> Comments of MNDOT (March 19, 2018) (eDockets 20183-141199-08).

<sup>122</sup> Comments of MPCA (February 5, 2018) (eDockets 20183-141199-04).

<sup>123</sup> Comments of DOC-DER (March 12, 2018) (eDockets 20183-140721-02).

property values. These commenters also requested that the three mile setback from Lake Cochrane established in Deuel County, South Dakota be honored in Minnesota.<sup>124</sup>

46. Flying Cow Wind provided comments in response to oral comments at the public meeting. Based on the oral comments regarding night-time aviation lighting for the Project, Flying Cow Wind agreed to install a radar-activated aircraft detection lighting system (ALDS) for the Project, subject to FAA approval of its use for the Project.<sup>125</sup>

47. Multiple commenters provided support for the Project, noting that the Project will have minimal impacts to the environment, create high-paying jobs, provide significant economic benefits in the form of direct payments to participating landowners, tax revenue for the county and townships and other economic benefits to the broader community. Commenters also voiced support for renewable generation projects generally. In addition, certain commenters noted that landowners in the Project Area should be allowed to use their property without being subject to the approval of landowners in South Dakota<sup>126</sup> Mr. Gary and Ms. Marsha Gabrielson, South Dakota residents and owners of land in Minnesota and South Dakota, commented on the status of Lake Cochrane development, noting the Lake is heavily-developed and can no longer be described as pristine, that the development of the Lake has affected the environment by creating noise pollution, air and water pollution, and displacing wildlife. They noted that Lake Cochrane residents had the freedom to develop Lake area, but want the ability to control what other landowners do with their land by imposing a three mile setback from the Lake. They suggested that Lake Cochrane residents should adjust to the Project just as they have adjusted to the increase in Lake development and activity.<sup>127</sup>

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<sup>124</sup> Comments of Amy Wagner (March 16, 2018)(eDockets 20183-1441198-20); Comments filed in SpeakUp! (March 20, 2018) (eDockets 20183-141198-16); Comments of Brenda and Mike Taylore (March 19, 2018) (eDockets 20183-141198-14); Comments of Ron Ruud (March 15, 2018)(eDockets 20183-141198-12); Comments of Ron Ruud (March 20, 2018)(eDockets 20183-141198-18); Comments of Paul Pedersen (March 16, 2018) (eDockets 20183-141198-04); Comments of Patricia Meyer (March 18, 2018)(eDockets 201711-137275-01); Comments of Jackie Otkin (March 19, 2018)(eDockets 201711-137271-01); Comments of Vicki Oswald (March 19, 2018)(eDockets 201711-137275-01); Comments of Lori Nosbush (March 16, 2018)(eDockets 20183-141196-16); Comments of Travis Norgaard (March 19, 2018)(eDockets 20183-141196-14); Comments of Susan Norgaard (March 12, 2018)(eDockets 20183-141196-12); Comments of David Meyer (March 17, 2018)(eDockets 20183-141196-06); Comments of Mark, Roberta and Kelton King (March 20, 2018)(eDockets 20183-141195-15); Comments of Shirly Holt (March 4, 2018) (eDockets 2013141195-05); Comments of Lisa Gebhart (March 19, 2018) (eDockets 20183-141195-01); Comments of Bradley Fairchild (March 19, 2018) (eDockets 20183-141194-15); Comments of Ashley Connor (March 19, 2018) (eDockets 20183-141194-11); Comments of Ashley Connor (March 19, 2018) (eDockets 20183-141194-11); Comments of Jennifer Bauer-Fuhr (March 19, 2018).(eDockets 20183-141194-09); Comments of Char Bauer (March 16, 2018) (eDockets 20183-141194-07); Comments of Diane Armstrong (March 16, 2018) (eDockets 20183-141194-05); Comments of Abbey Pederson (March 16, 2018) (eDockets 20183-141194-03).

<sup>125</sup> Reply Comments of Flying Cow Wind (March 15, 2018)(eDockets 20183-141198-08).

<sup>126</sup> Comments of Drew Wesner (March 19, 2018)(eDockets 20183-141199-02); Comments of Lewis Miller (Feb. 25, 2018)(eDockets 20183-141196-10); Comments of Jennifer Meyer (March 19, 2018) (eDockets 20183-141196-08); Comments of Perry Lueders (March 19, 2018)(eDockets 20183-141196-04); Comments of Richard Larsen (March 20, 2018);(eDockets 20183-141196-19); Comments of Todd Pesek (March 14, 2018) (eDockets 20183-141198-06); Comments of Mike and Mona Evans (March 15, 2018) (eDockets 20183-141194-13); Comments of Paul Tol (March 20, 2018)(eDockets 20183-141198-18).

<sup>127</sup> Comments of Gary and Marsha Gabrielson (March 12, 2018) (eDockets 20183-141194-19).

48. Stacey Karels on behalf of the Mankato Building Trades Council and Mr. Burt Johnson of the North Central States Regional Council of Carpenters each commented on the use of local jobs for wind farm construction., and noted that increased use of local workforce increases the benefit to the local community. Mr. Karels also requested that quarterly reporting requirements related to the use of local construction workers be required, and questioned what commitments Flying Cow Wind is willing to make regarding hiring of local workers <sup>128</sup>

49. Ms. Katie Hatt, Executive Director of the North Star Policy Institute, recommended that the Commission include reporting requirements on the use of local and non-local construction labor during the construction phase of the Project and future wind farm projects as a Site Permit condition. She indicated the data is necessary to sufficiently assess the human and environmental impacts of wind farm projects, and that often times there is insufficient data to assess the economic impacts of wind farm projects in Minnesota.<sup>129</sup>

50. On April 3, 2018, the Commission issued a Notice of Additional Comment Period extending the comment period to provide comments on the Project in response to the Site Permit Addendum.<sup>130</sup> The Notice of Additional Comment Period solicited comments on (1) the potential human and environmental impacts of the proposed revised Project scope that should be considered in the environmental document and draft site permit for the Project; (2) the possible methods to minimize, mitigate, or avoid potential impacts of the proposed revised Project; (3) unique characteristics of the proposed changes to the Project that should be considered; and (4) missing or mischaracterized items in the Site Permit Addendum.<sup>131</sup> The Notice established an April 13, 2018 deadline for written comments.<sup>132</sup> Sixteen additional written comments were received during the extended comment period, including a supplemental comment letter from the MNDNR.<sup>133</sup>

51. MNDNR provided supplemental comments on the appropriate siting of specific turbines (T1, T20, A8, A9, A10, and T39). MNDNR also provided comments regarding ecologically significant areas in the Project Area and on state-listed species.<sup>134</sup>

52. Multiple individuals submitted identical comments on behalf of the Minnesota Laborers District Council commented on hiring of local workers for construction jobs, and

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<sup>128</sup> Comments of Mankato Building Trades (March 19, 2018)(eDockets 20183-141196-04); Comments of North Central States Regional Council of Carpenters (March 19, 2018)(eDockets 20183-141195-13).

<sup>129</sup> Comments of North Star Policy Institute (March 19, 2018) (eDockets 20183-141196-03).

<sup>130</sup> Ex. 321 (Notice of Additional Comment Period).

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> 320 (Public Comments).

<sup>134</sup> Comments of MNDNR (April 13, 2018) (eDockets 20184-142056-12).



suggested requiring Flying Cow Wind to disclose a workforce plan and submit data on the use of local workers as a permit condition.<sup>135</sup>

### **C. Joint Public Hearing**

53. On June 12, 2018, the Commission issued a Notice of Joint Public Hearing and a Notice of Draft Site Permit Availability.<sup>136</sup> The Notice provided that a public hearing on the Application would be held before the ALJ on June 28, 2018, and it solicited written comments on (1) whether the Commission should issue a Certificate of Need and a Site Permit for the Project; (2) whether the Project is needed and in the public interest; (3) the costs and benefits of the Project; (4) the environmental and human impacts of the Project and how those impacts can be addressed; and (5) whether there are other Project-related issues or concerns.<sup>137</sup> The Notice established a July 18, 2018 deadline for written comments.<sup>138</sup>

54. Flying Cow Wind made presentation regarding the Project and certain changes since the public meeting.<sup>139</sup>

55. Mr. Wayne Viessman, Lake Cochrane resident and owner of the State Line Bar and Grill, opposed the Project and expressed concerns about visual impacts to the restaurant, noise from the Project, and negative impacts to investments in the area.<sup>140</sup>

56. Mr. Bob Pollock spoke in favor of issuing the certificate of need, referencing climate change. Mr. Pollock also expressed concern about preserving farmland, and referenced issues such as soil compaction, islanding of fields, the soil profile, and damage to tile. Finally, he expressed concerns regarding the the contracts between landowners and wind developers.<sup>141</sup>

57. Mr. Stacey Karels on behalf of the Mankato Building Trades commented on his experience with contractors that are required to utilize a certain percentage of local workers.<sup>142</sup>

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<sup>135</sup> Comments of Dan McGowan (April 10, 2018)(eDockets 20184-142056-04); Comments of Dave Kephart (April 10, 2018)(eDockets 20184-142055-19); Comments of Stacey Karels (April 10, 2018)(eDockets 20184-142055-17); Comments of Ryan Isham (April 10, 2018)(eDockets 20184-142055-15); Comments of Fracno (April 10, 2018)(eDockets 20184-142055-13); Comments of Engstrom (April 10, 2018)(eDockets 20184-142055-11); Comments of Dan Brady (April 10, 2018)(eDockets 20184-142055-09); Comments of Slavicek (April 10, 2018)(eDockets 20184-142055-05); Comments of Keith Petersen (April 10, 2018)(eDockets 20184-142055-03); Comments of Peltier (April 10, 2018)(eDockets 20184-142055-01).

<sup>136</sup> Ex. 333 (Notice of Joint Public Hearing and Draft Site Permit Availability). Minn. Public Utilities Comm'n, Notice of Joint Public Hearing & Draft Site Permit Availability, June 12, 2018).

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> Joint Public Hearing Transcript (Tr.) at 15:5 – 19:25.

<sup>140</sup> Public Hearing Tr. at 21:13 – 23:9. (Viessman)

<sup>141</sup> Public Hearing Tr. at 23:14 – 27:8 (Pollock).

<sup>142</sup> Public Hearing Tr. at 27:11 – 28:9 (Karels)

58. Mr. Brandon Coil, landowner and project participant, raised concerns regarding the MNDNR indicating his property is a protected area, and noting that the MNDNR does not have any easements on his property.<sup>143</sup>

59. Ms. Brenda Taylor a resident near Lake Cochrane, raised concerns regarding visual impacts, the greater protections under the Deuel County ordinance, and the potential for negative impacts to property values. She requested that a three mile setback from Lake Cochrane be imposed.<sup>144</sup>

60. Mr. Ron Ruud resident of Lake Cochrane and member of the Lake Cochrane Improvement Association raised commented on the unique characteristics of the lake and the recreational use of the lake. He expressed concerns regarding sound, property values, and visual impacts. Regarding sound, Mr. Ruud raised questions about the effects of temperature inversions on sound propagation. Mr Ruud also indicated he was disappointed in the locations selected for the visual simulations, and requested further information regarding the development of the simulations. Finally, Mr. Ruud requested that a three mile setback from Lake Cochrane be impose.<sup>145</sup>

61. Mr. Dean Maeyaert, resident of Lake Cochrane, expressed concerns over impacts to property values.<sup>146</sup>

62. Mr. Jim Ekholm, landowner on Lake Cochrane, spoke about how Lake Cochrane is unique because of the number of lakes in South Dakota, and asked to have the three mile setback from the lake.<sup>147</sup>

63. Ms. Diane Armstrong, resident of Lake Cochrane, commented on the lake and requested that the three mile setback from Lake Cochrane be honored.<sup>148</sup>

64. Mr. Alan Armstrong introduced a letter from Nancy Marking Johnson, a Lake Cochrane resident, who commented on protecting Lake Cochrane. Mr. Armstrong, also a Lake Cochrane resident, then provided his own comments on the qualities of the lake, and requested that the Commission consider that Deuel County evaluated the impacts of wind projects on the lake and imposed a three mile setback from the lake.<sup>149</sup>

65. Mr. John Mills, District 4 Representative in the South Dakota House of Representatives, commented on the number of lakes in South Dakota and the extensive process

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<sup>143</sup> Public Hearing Tr. at 28:12 – 29:9 (Coil).

<sup>144</sup> Public Hearing Tr. at 29:12 – 31:9 (Taylor).

<sup>145</sup> Public Hearing Tr. at 31:22 – 38:3 (Ruud).

<sup>146</sup> Public Hearing Tr. at 38:11 – 39:20 (Maeyaert).

<sup>147</sup> Public Hearing Tr. at 39:23 – 42:7 (Ekholm).

<sup>148</sup> Public Hearing Tr. at 42:14 – 44:7 (Armstrong).

<sup>149</sup> Public Hearing Tr. at 44:22 – 45:18 (Johnson); 45:25 – 46:18 (Armstrong).

that Deuel County conducted in establishing the three mile setback from Lake Cochrane. He requested that the three mile setback be imposed in Minnesota as well.<sup>150</sup>

66. Ms. Katie Willers, a Lake Cochrane resident, expressed concerns about property values, and questioned whether any studies had been done specific to the Lake. Sean Flannery of Flying Cow Wind responded regarding general studies of property value impacts. Ms. Willers requested that research be done regarding the area. Ms. Willers also commented on the height of the turbines.<sup>151</sup>

67. Ms. Susan Norgaard, Lake Cochrane landowner, spoke about her history at the lake. She expressed concern about noise and the potential for associated health impacts. She also expressed concern about property value impacts.<sup>152</sup>

68. Mr. David Meyer spoke about the history of Lake Cochrane and unique features of the lake.<sup>153</sup>

69. Mr. Curtis Mulder commented on his history in the area, and expressed concerns regarding the visual impacts of the Project, and the impacts to wildlife and hunting in the area.<sup>154</sup>

70. Ms. Katie Hatt, the Executive Director of the North Star Policy Institute presented on two reports recently published by the North Star Policy Institute on the impact of local and nonlocal hiring in wind farm construction. Ms. Hatt highlighted the findings of the research, noting the higher economic impacts when increased local labor as a result of direct wages and induced activity in the community. She noted that approval of the Project could displace approval of another Project that would hire more local workers, and further noted the potential for negative economic impacts from the Project due to impacts to the local resort and tourist businesses.<sup>155</sup>

71. Mr. Doug Gunderson, a Lake Cochrane resident, expressed concern regarding property values, and questioned who would be responsible for a decrease in property values. Mr. Gunderson asked whether the three mile setback applies. Mr. Flannery responded by summarizing the compliance of the Project with applicable setbacks. Mr. Gunderson also asked about setbacks in Minnesota around lakes. Mr. Panait from the Commission responded with a summary of applicable setbacks.<sup>156</sup>

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<sup>150</sup> Public Hearing Tr. at 46:21 – 48:2 ((Mills).

<sup>151</sup> Public Hearing Tr. at 48:6 – 48:25; 49:18 – 50:11 (Willers).

<sup>152</sup> Public Hearing Tr. at 51:9 – 53:9 (Norgaard).

<sup>153</sup> Public Hearing Tr. at 53:12 – 54:13 (Meyer).

<sup>154</sup> Public Hearing Tr. at 54:23 – 58:6 (Mulder).

<sup>155</sup> Public Hearing Tr. at 58:9 – 63:21 (Hatt).

<sup>156</sup> Public Hearing Tr. at 64:13 – 65:13 (Gunderson).

72. Mr. Nate O'Reilly from the Iron Workers Union spoke in support of local hiring, and suggested that the Commission establish local hiring requirements as a permit condition.<sup>157</sup>

73. Mr. Will Thomsson, a union crane operator, commented on the availability of trained, skilled local workers.<sup>158</sup>

74. Mr Kevin Pranis commented on behalf of Intervenors. Mr. Pranis asked a series of questions regarding RES as a company and the hiring practices of RES in constructing a typical wind farm. Nick Berzins appeared on behalf of Flying Cow Wind and provided an overview of local hiring practices of RES. Mr. Pranis asked additional questions regarding specific numbers of local workers associated with other wind projects in which RES is involved in the construction. Mr Pranis asked whether Flying Cow Wind would be willing to provide local hiring data regarding the other projects in reply comments. Mr. Pranis also requested that a special permit condition be included in the site permit requiring local reporting similar to the local reporting requirement agreed to in the Nobles 2 project.<sup>159</sup>

#### **D. Written Comments in Joint Public Hearing Comment Period**

75. On June 12, 2018, the Commission issued a Notice of Joint Public Hearing and a Notice of Draft Site Permit Availability.<sup>160</sup> The Notice provided that a public hearing on the Application would be held before the ALJ on June 28, 2018, and it solicited written comments on (1) whether the Commission should issue a Certificate of Need and a Site Permit for the Project; (2) whether the Project is needed and in the public interest; (3) the costs and benefits of the Project; (4) the environmental and human impacts of the Project and how those impacts can be addressed; and (5) whether there are other Project-related issues or concerns.<sup>161</sup> The Notice established a July 18, 2018 deadline for written comments.<sup>162</sup>

76. Intervenors filed comments to supplement their oral testimony at the Joint Public Hearing. Intervenor's proposed requested that Flying Cow Wind agree to a special permit condition regarding local labor reporting, similar to what was agreed to in the Nobles 2 project. Intervenor's further submitted a series of 12 Information Requests requesting information from RES on various employment metrics associated with the Pleasant Valley Wind Farm and the Stoneray Wind Farm.<sup>163</sup>

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<sup>157</sup> Public Hearing Tr. at 71:2 – 73:15 (O'Reilly).

<sup>158</sup> Public Hearing Tr. at 83:12 – 84:6 (Thomsson).

<sup>159</sup> Public Hearing Tr. at

<sup>160</sup> Ex. 333 (Notice of Joint Public Hearing and Draft Site Permit Availability). Minn. Public Utilities Comm'n, Notice of Joint Public Hearing & Draft Site Permit Availability, June 12, 2018.

<sup>161</sup> *Id.*

<sup>162</sup> *Id.*

<sup>163</sup> Comments of Intervenor (July 10, 2018) (eDockets 20187-144641-07; 20187-144641-01).

77. Mr. Lee Doering, a Minnesota taxpayer, commented in support of wind power and the Project, noting the Project is environmentally sound.<sup>164</sup>

78. Jim and Sheryl Irvine. Lake Cochrane residents, expressed concern regarding noise and avian fatalities, and recommended a three mile setback from Lake Cochrane.<sup>165</sup>

79. Perry and Joan Heaton, Lake Cochrane residents, expressed concern over visual impacts and recommended a three mile setback from Lake Cochrane.<sup>166</sup>

80. Three sets of comments were filed by unnamed individuals for the Lake Cochrane Improvement Association (“LCIA”). The LCIA expressed concern that a three mile setback was not being honored because one of the landowners is a RES employee. The LCIA also responded to the comments of Mr. Lee Doering, noting that Mr. Doering is not an area resident. Finally, the LCIA commented on the visual simulations provided by Flying Cow Wind, expressing concern about the locations that were selected. The LCIA commented that no input on the locations was sought from residents of Lake Cochrane, the sites chosen minimize the view of the towers, and the photo from the Public Water Access was low to the water and over a mile away from the shore closest to the Project. The LCIA also provided images comparing the visual simulation from the public water access on Lake Cochrane to two manipulated photos which LCIA generated from the visual simulation by zooming in on turbines T35 and T2, respectively.<sup>167</sup>

81. Paul and Harley Westphal commented on the elimination of turbine T1. As owners of the property on which T1 was sited, they support T1 remaining in the Project. They also noted that they do not support a three mile setback from Lake Cochrane.<sup>168</sup>

82. On July 18, 2018, Flying Cow Wind submitted comments on proposed permit conditions along with its proposed findings of fact, conclusions of law, and recommendations.<sup>169</sup>

## **VIII. FACTORS FOR A SITE PERMIT**

83. Wind energy projects are governed by Chapter 216F of the Minnesota Statutes and Chapter 7854 of the Minnesota Rules. Minn. Stat. § 216F.01, subd. 2 defines a “large wind energy conversion system” (“LWECS”) as any combination of wind energy conversion systems with a combined nameplate capacity of five MW or more. Minn. Stat. § 216F.03 requires that a LWECS be sited in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

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<sup>164</sup> Comments of Lee Doering (July 13, 2018) (eDockets 20187-144817-01).

<sup>165</sup> Comments of Jim and Sheryl Irvine (July 11, 2018) (eDockets 20187-144815-01).

<sup>166</sup> Comments of Perry and Joan Heaton (July 12, 2018) (eDockets 20187-144813-01).

<sup>167</sup> Comments of Lake Cochrane Improvement Association (July 16, 2018) (eDockets 20187-144949-01; 20187-144942-01; and 20187-144941-01).

<sup>168</sup> Comments of Paul and Harley Westphal (July 16, 2018) (eDockets 20187-144972-01).

<sup>169</sup> Comments of Flying Cow Wind and Proposed Findings of Fact, Conclusions of Law, and Recommendations (July 18, 2018) (eDockets \_\_\_\_\_).

84. In addition, when deciding whether to issue a Site Permit for a LWECS, the Commission considers the factors set forth in Minn. Stat. § 216E.03, Subd. 7, which specifies, in relevant part, that the Site Permit determination “shall be guided by, but not limited to, the following considerations:

- (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- (2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- (3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
- (4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;
- (5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- (6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- (7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;
- (8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- (10) evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

(11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and

(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.

85. The Commission must also consider whether an applicant has complied with all applicable procedural requirements.

86. The Commission's rules require an applicant to provide information regarding any potential impacts of the proposed Project, potential mitigation measures, and any adverse effects that cannot be avoided as part of the application process. No separate environmental review is required for an LWECS project. Certain mitigation measures that Flying Cow Wind intends to implement are specifically identified below.

## **IX. APPLICATION OF SITING CRITERIA TO THE PROPOSED PROJECT**

### **A. Socioeconomic Considerations**

87. The Project is located in southwestern Minnesota in Yellow Medicine County. The county is predominantly rural with an agricultural economic base. In 2012, approximately 81% (395,027 acres) of the land in Yellow Medicine County was occupied by farms. The population of the county in 2015 was estimated to be 10,092, with an estimated average household size of 2.42 people. The 2015 median household income was \$53,041.<sup>170</sup>

88. The Project will benefit the local economy. It will create approximately 150 temporary jobs during construction and approximately four to six permanent jobs. Construction and operation may also increase the local tax base.<sup>171</sup>

89. Lease and wind easement agreements made with landowners include payments that offset potential financial losses due to small areas of land being removed from agricultural production. All participating landowners will receive compensation for Project facilities constructed on their land; landowners that signed a setback waiver will also receive compensation. No substantial effects on permanent housing in the area are anticipated.<sup>172</sup>

90. Accordingly, the Project's demographic and socioeconomic impacts are expected to be positive, and no mitigation measures will be required.

### **B. Land-Based Economies**

91. The majority of the Project Area is agricultural. Cultivated land comprises approximately 10,636 acres (46.5%) of the Project Area. Pasture land comprises approximately

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<sup>170</sup> Site Permit Application at §9.1.1.

<sup>171</sup> *Id.* at §9.1.2.

<sup>172</sup> *Id.*

5,990 acres (26.2%) of the Project Area. Small portions of land will be removed from agricultural production at turbine locations and along proposed access roads (1-2 acres per turbine)<sup>173</sup> or approximately 82.19 acres (0.36% of the Project Area) will be permanently converted to non-agricultural use.

92. Lease and wind easement agreements made with landowners include payments that offset potential financial losses due to small areas of land being removed from agricultural production. All participating landowners will receive compensation for Project facilities constructed on their land; landowners that signed a setback waiver will also receive compensation.<sup>174</sup>

### **C. Recreation and Tourism**

93. Tourism in Yellow Medicine County focuses primarily on promoting the area's natural history, parks, historical sites, game and wildlife, lakes, farms, and small towns. Also publicized are cultural (museums, art, and antiques) and recreational activities (parks, hiking trails, camping, canoeing, horseback riding, fishing, wildlife refuges, snowmobiling, golf courses, swimming pools, tennis courts, and skiing).<sup>175</sup>

94. Parks within Yellow Medicine County include Upper Sioux Agency State Park, Wood Lake and Oraas county parks, and Stonehill Regional Park, Canby Triangle Park Campground, and Central Park in Canby. The nearest park is Stonehill Regional Park, which is located approximately 2 miles east of the Project Area.<sup>176</sup> There are five wildlife management areas ("WMAs") within the Project Area. There are 33 WMAs and one SNA located within 10 miles of the Project Area.<sup>177</sup> In addition, the Lake Cochrane Recreation Area is located to the west of the Project in Deuel County, South Dakota.

95. The MNDNR offers a Walk-In Access (WIA) Program for public hunting on private land. There are two WIA parcels within the Project Area totaling 308 acres.<sup>178</sup>

96. The Project will avoid all WMAs, WPAs, WIAs, and snowmobile trails and has been designed to maintain the 3 x 5 RD wind access buffer from all public lands<sup>179</sup>.

97. Because all Project facilities will generally be located on private lands, there will be no direct impacts to recreational facilities, public lands, or other tourism-related activities.

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<sup>173</sup> *Id.* at §9.10.

<sup>174</sup> *Id.* at §9.1.2.

<sup>175</sup> Site Permit Application at §9.11.1.

<sup>176</sup> *Id.*

<sup>177</sup> *Id.*

<sup>178</sup> *Id.*

<sup>179</sup> Site Permit Application at §9.7.2.



Proposed setbacks from recreational trails, public roads, and non-leased properties (including public lands) will minimize any indirect impacts.<sup>180</sup>

#### **D. Land Use**

98. Section XVI (Renewable Energy) of the Yellow Medicine County Land Use and Related Resource Management Ordinance (LURRMO) establishes setbacks for wind energy conversion systems. By its terms, the ordinance applies only to systems that are not otherwise subject to siting and oversight by the MPUC and therefore does not apply to the Project.<sup>181</sup>

99. Project impacts to local zoning, land use plans, and conservation easement lands are expected to be minimal. To the extent practicable, the Applicant sited Project turbines and routed access roads, collection lines, and associated facilities in compliance with applicable requirements of the Comprehensive Plan, LURRMO, and the Comprehensive Local Water Management Plan.<sup>182</sup>

100. The Project has been designed to avoid impacts to known conservation easements. No impacts are anticipated to federally owned lands or grassland easements, and no impacts are anticipated to state conservation lands.<sup>183</sup>

101. In the event that potential impacts occur to CRP lands, the Applicant will work with the landowner and CRP easement holder to identify options to minimize and mitigate Project impacts (e.g., reimburse for taking land out of CRP). The Applicant will continue to review land title information to identify conservation lands and review the Project layout to avoid or minimize potential impacts.<sup>184</sup>

102. The Applicant will coordinate with Yellow Medicine County to secure required permits as necessary (e.g., building permits).<sup>185</sup>

#### **E. Local Economies**

103. The Project will have a positive impact on both the tax base and local economy. Landowners and farmers will have an opportunity to increase land and agricultural profitability, and a more diverse source of income, from the Project. Wind energy generation provides a long-term, annual benefit to participating landowners. Landowners involved with the Project, as well as those who have leased their wind rights to the Project, will receive a royalty or lease payment annually for the life of the Project.<sup>186</sup>

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<sup>180</sup> *Id.* at §9.11.2.

<sup>181</sup> Site Permit Application at §9.2.3.

<sup>182</sup> *Id.*

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

<sup>185</sup> *Id.*

<sup>186</sup> Site Permit Application at §9.12.

104. In addition to creating jobs and supplementing personal income, the Project will pay a wind energy production tax to local units of government. This production tax credit is \$1.20 per MWh of electricity produced, which will result in an estimated annual wind energy production tax payment of approximately \$690,000.<sup>187</sup>

105. Project facilities will be located on leased lands; therefore, there will be no unmitigated impacts to the property values of participating landowners. Concerns of non-participating landowners regarding adverse impacts to their property values has been studied and the findings of a nationwide study that reviewed the sale of over 50,000 home sales in nine separate states found that sale prices/property values were not impacted by wind development actions (Hoen et al., 2013).<sup>188</sup>

106. The Project provides landowners and farmers with opportunities for additional land and agricultural profitability and offers an opportunity for a more diverse revenue source. Wind energy production is a long-term income-generating opportunity that will provide an annual benefit to participating landowners.<sup>189</sup>

107. Local contractors and suppliers will be used for portions of the construction. Wages and salaries paid to contractors and local workers will supplement personal income of the region. Additional income will be generated for the county and state economy through the circulation and recirculation of dollars paid out by the Applicant for business expenditures and for state and local taxes. Payments for equipment, fuel, operating supplies, and other products and services benefit local and regional businesses. Landowners with turbine or other Project facilities on their land will receive a royalty or lease payment annually for the life of the Project. These payments will have a positive effect that will diversify and strengthen the local economy.<sup>190</sup>

108. Participating landowners will be compensated for the use of their property for the Project. Landowners that signed setback waivers will also be compensated. Non-participating landowners are not expected to see any impacts to their property values because the Project will adhere to required setbacks from homes, as well as state-mandated sound and shadow flicker restrictions.<sup>191</sup>

## **F. Noise**

109. The sound created by wind turbine generators is dependent upon operating and weather conditions. A noise study was completed for the Project to determine the maximum sound levels predicted to be experienced at sound receptors in the vicinity of the Project. The

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<sup>187</sup> *Id.*

<sup>188</sup> *Id.*

<sup>189</sup> *Id.*

<sup>190</sup> *Id.*

<sup>191</sup> *Id.*

study included all 52 turbine locations, and the results can be considered conservative because only 44 of the 52 turbine locations will be constructed.<sup>192</sup>

110. A total of 258 receptors were evaluated in the study: 60 receptors in Minnesota within one mile of a turbine or transformer, 28 receptors in South Dakota within one mile of a turbine or transformer, and 170 additional receptors along the shores of Lake Cochrane regardless of distance to a turbine.<sup>193</sup>

111. The results indicate that the calculated sound levels at all receptors included in the analysis are within the allowable limits under applicable Minnesota and South Dakota state and county level noise regulations.<sup>194</sup> For many receptors in South Dakota, these results can be considered conservative following the removal of turbine T1 from the layout.

### **G. Visual Impacts**

112. The construction of wind turbines will impact the visual surroundings of the Project Area. The perceived degree of visual impact will vary based on personal preferences and subjective human responses. For some viewers, the Project may be perceived as a visual intrusion; others may view the Project as a positive aesthetic feature on the landscape.<sup>195</sup>

113. The topography in the vicinity is relatively flat, and the agricultural vegetation has a low profile, which makes objects with comparably high profiles potentially viewed as visual disruptions. Visual impacts will be most evident to people who live in and near the Project and to people traveling through the Project Area. While people living in or traveling through the area are accustomed to viewing wind turbines, the Project will add to the cumulative visual impacts by adding up to 44 new turbines in the area.<sup>196</sup>

114. Some Project proposed turbines will be located within the viewshed of MNDNR-managed Wildlife Management Areas (WMAs), Scientific and Natural Area (SNA), or other natural areas and may be seen by people using those areas.<sup>197</sup>

115. Some Project proposed turbines will be located within the viewshed of the Lake Cochrane Recreation Area as well as certain receptors located on Lake Cochrane. Flying Cow Wind prepared visual simulations from several viewpoints at and around Lake Cochrane. These visual simulations show that some turbines will be visible from these locations.<sup>198</sup>

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<sup>192</sup> Sound Modelling Assessment – Revised at §6 (March 27, 2018).

<sup>193</sup> *Id.* at §4.3.

<sup>194</sup> *Id.* at 1.

<sup>195</sup> Site Permit Application at §9.4.3.

<sup>196</sup> *Id.*; Site Permit Addendum at 4, table 2.

<sup>197</sup> Site Permit Application at §9.4.2.

<sup>198</sup> Ex. 214 (Flying Cow Wind Visual Simulations).

116. The turbines will be lit in accordance with a lighting plan that meets the minimum FAA regulations for lighting at night.<sup>199</sup> On March 15, 2018, Flying Cow Wind committed to installing an ADLS, subject to FAA approval of the system.<sup>200</sup> The ADLS lighting would control the obstruction of turbine lights so that they only turn on if a plane is detected in the vicinity of the wind farm, thereby balancing safety and local residents' concerns.<sup>201</sup>

117. Flying Cow Wind conducted a shadow flicker assessment on the proposed Project layout. 99 potentially-affected receptors within approximately 5,676 feet of a turbine were included in the assessment. All 52 turbine locations were included in the assessment, although only 44 will be constructed, so the assessment results can be considered conservative.<sup>202</sup>

118. The receptor in Minnesota that is predicted to experience the most hours of shadow flicker in one year is MN321. The predicted duration of shadow flicker at this receptor is 33 hours per year when taking into account long-term average monthly cloud cover and annual wind rose. The predicted duration of shadow flicker on the worst day of the year at this receptor without considering cloud cover and wind rose statistics is 66 minutes on 12 December. The receptor MN321 is a project participant.<sup>203</sup>

119. The receptor with the longest duration of flicker in a single day is MN274, with 72 minutes of shadow flicker expected to occur on 27 February. Receptor MN274 is a project participant.<sup>204</sup>

120. The receptor in South Dakota that is predicted to experience the most hours of shadow flicker in one year as well as the highest number of minutes in a single day is SD335. The predicted duration of shadow flicker at this receptor is 9 hours per year when taking into account long-term average monthly cloud cover and annual wind rose. This respects the limits set forth by Deuel County Ordinance B2004-01-23B. The predicted duration of shadow flicker on the worst day of the year at this receptor without consideration of cloud cover and wind rose statistics is 35 minutes on 4 January. Receptor SD335 is not a participant.<sup>205</sup>

121. The Revised Shadow Flicker Assessment was completed prior to changes to the layout of the Project that eliminated turbine locations T1, T20 and A10.<sup>206</sup> Accordingly, results for receptors for which one of these turbines was a contributing factor will likely be lower than indicated in the assessment. This is particularly true for receptors in South Dakota for which turbine T1 was the only contributing turbine.

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<sup>199</sup> Application at 7-10.

<sup>200</sup> Comments of Flying Cow Wind (March 15, 2018) (eDockets 20183-141102-01).

<sup>201</sup> *Id.*

<sup>202</sup> Shadow Flicker Assessment – Revised at v (March 27, 2018).

<sup>203</sup> *Id.*

<sup>204</sup> *Id.*

<sup>205</sup> *Id.*

<sup>206</sup> Flying Cow Wind Response to MNDNR Comments (June 25, 2018) (eDockets 20186-144183-01).

## **H. Public Services and Infrastructure**

122. Public services to farmsteads and rural residences within the Project Area include transportation/roadways, electric, and the Lincoln Pipestone Rural Water System water treatment plant (although most farmsteads appear to have their own potable water supply and onsite domestic waste systems).<sup>207</sup>

123. The closest city to the Project Area is the City of Canby (City), located approximately 3.5 miles northeast of the Project Area. The City provides sanitary sewer, water, cable television, telephone, and library services to its residents. Additionally, the City's emergency services include a volunteer fire department, an ambulance service, and a police department. There are no active railroad lines in the Project Area.<sup>208</sup>

124. Existing roadway infrastructure in and around the Project Area consists of county and township roads that generally follow section lines, in addition to private unpaved farmstead driveways and farming access roads. Various County State Aid Highways (CSAHs), State Trunk Highways (STHs), County Roads (CRs), and township roads provide access to the Project Area, which are either two-lane paved or gravel roads.<sup>209</sup>

125. The highest existing Annual Average Daily Traffic ("AADT") in or near the Project Area is 1,150 vehicles per day along STH 68. Along the remaining county highways, the AADT is at or below 700 vehicles per day.<sup>210</sup>

126. Impacts to traffic will be short-term, intermittent, and occur during the construction phase of the Project. Impacts will be from the transport of Project components to the Project Area and from the movements of construction workers. Equipment and materials used in construction of wind farms can be extremely heavy and/or oversized loads. Therefore, increased wear and tear of local roads may be expected from delivery of Project materials and equipment. Possible weight related impacts to roads include physical damage to the structure of the road itself and/or damage to culverts and bridges.<sup>211</sup>

127. The maximum construction traffic is expected to be approximately 500 additional vehicle trips per day, with an estimated daily average of about 200 vehicles.<sup>212</sup>

128. As stated previously, the Applicant will work with Yellow Medicine County and the affected townships to enter into a Road Use Agreement prior to construction of the Project. The Applicant will also work closely with the landowners in the placement of access roads to

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<sup>207</sup> Site Permit Application at §9.5.

<sup>208</sup> *Id.*

<sup>209</sup> *Id.* at §9.5.1.1.

<sup>210</sup> *Id.*

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*

minimize land-use disruptions during construction and operation of the Project to the extent possible.<sup>213</sup>

129. The Applicant will obtain, file and submit all required MnDOT permits, including permits to complete the necessary work in MnDOT's right-of-way, such as transportation of turbines and equipment to and from the site. All roads, bridges, culverts, approaches, and intersections will be left in as good or better condition than before construction of the Project.<sup>214</sup>

130. Comsearch performed a communication tower study in the vicinity of the Project Area in 2016 to identify tower structures and Federal Communications Commission (FCC)-licensed communication antennas. There is one cell tower located approximately 1 mile north of the Project Area. There are four communication antennas within the Project Area and two communication antennas within 1.5 miles of the Project Area that are used for land mobile services.<sup>215</sup>

131. Flying Cow Wind retained Comsearch to complete a microwave search and interference study on existing non-federal government microwave telecom systems. Comsearch identified no microwave paths that intersect the Project Area.<sup>216</sup>

132. The Project is designed to comply with the Commission's wind turbine setback and siting guidelines, which include setback requirements for communication towers, microwave beam paths, and overhead transmission lines.<sup>217</sup>

133. Construction and operation of the Project is not anticipated to impact telephone, cable, or internet service in the Project area.<sup>218</sup> Flying Cow Wind will operate the wind farm to avoid microwave, radio, telephone, television, or navigation interference to meet FCC regulations and other requirements. To the extent Project facilities cross or otherwise affect existing telecommunications equipment or transmission, Flying Cow Wind will coordinate with applicable service providers to avoid interference with these facilities. If it is determined that the Project will negatively impact telecommunication services, Flying Cow Wind will provide a specific mitigation plan and take the necessary steps to restore all impacted services at the expense of the Project.<sup>219</sup>

134. The Lincoln-Pipestone Rural Water System (LPRWS) operates a water treatment plant and associated water wells in the northwest corner of the Project Area, as well as associated buried water distribution lines. An existing water pipeline currently runs along the eastern edge of the Project Area, which is also operated by LPRWS and Flying Cow Wind is working with

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<sup>213</sup> Site Permit Application at §9.5.1.3.

<sup>214</sup> *Id.*

<sup>215</sup> *Id.* at §9.5.2.1.

<sup>216</sup> *Id.*

<sup>217</sup> *Id.* at §9.5.2.3.

<sup>218</sup> *Id.*

<sup>219</sup> *Id.*

LPRWS to understand the specific pipeline location relative to the Project.<sup>220</sup> Flying Cow Wind will coordinate with, and obtain crossing agreements from, LPRWS for Project facilities that will be located near or cross LPRWS infrastructure and ensure the LPRWS system is not impacted by the Project.<sup>221</sup>

## **I. Public Health and Safety**

135. Electromagnetic fields (EMF) are electric and magnetic fields present around all electrical devices. EMF from underground electrical collection lines dissipates close to the lines because they are installed below ground, geometrically close to each other, and wound with copper wires in their jackets. The electrical fields around these lines are negligible and the small magnetic field directly above the lines dissipates within 20 ft (6.1 m) on either side of the installed cable, based on engineering analysis. Collection lines will be buried underground to a depth of at least 42 inches (with the exception of junction boxes) and will be located no closer than 110 ft (34 m) from a residence. EMF associated with the transformers within the nacelle dissipates within 5 ft (1.5 m), so the 1,500-foot (457 m) turbine setback from residences will be adequate to avoid any EMF exposure to homes. Wind turbine interconnection cables will be setback from residences in excess of state standards at least 110 ft (34 m), where EMF will be at background levels.<sup>222</sup>

136. Stray voltage is a natural phenomenon that results from low levels of electrical current flowing between two points that are not directly connected. Potential impacts from stray voltage can result from a person or animal coming in contact with neutral-to-earth voltage. There are no dairy farms within the Project Area. Where distribution lines have been shown to contribute to the propagation of stray voltage on farm facilities, the distribution system was either directly under or parallel to an existing transmission line. These factors are considered in design and installation of transmission lines and can be readily mitigated. To address stray voltage, electrical systems, including farm systems and utility distribution systems, must be adequately grounded to the earth to ensure continuous safety and reliability, and to minimize this current flow. Wind energy collection systems mitigate any such issue by running a continuous bare ground conductor from the furthest turbine to the substation.<sup>223</sup>

137. Flying Cow Wind will design, construct, and operate all electrical equipment, including turbines, transformers, collection lines, and transmission lines in accordance with applicable codes, manufacturer specifications, and required setbacks. Because no impacts due to EMF or stray voltage are anticipated, no mitigation is proposed.<sup>224</sup>

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<sup>220</sup> Site Permit Application at §9.5.3.

<sup>221</sup> Site Permit Application at §9.5.3.1.

<sup>222</sup> *Id.* at §9.8.1.

<sup>223</sup> *Id.*

<sup>224</sup> *Id.*

138. There is one airport within 10 miles (16 km) of the Project Area. The nearest airport is the Myers Field Airport, located approximately 4.0 miles (6.4 km) east/northeast of the Project Area in Canby, Minnesota.<sup>225</sup>

139. Setbacks to airport facilities must be in accordance with MnDOT Office of Aeronautics and FAA requirements. The Project turbines must each receive a Determination of No Hazard from the FAA, and all turbines over 499 ft tall must also obtain an Airspace Obstruction Permit from the MnDOT Aeronautics Division prior to construction and additional FAA review. Further, the Applicant will appropriately mark and light the turbines and meteorological towers to comply with FAA guidelines.

140. Crop dusting of agricultural fields may occur near the Project Area. Crop dusting is generally conducted during the day by highly maneuverable airplanes or helicopters. Installing wind turbine towers, aboveground transmission lines, or other associated aboveground facilities in active croplands would create a potential for collisions with crop-dusting aircraft.<sup>226</sup>

141. The aboveground transmission line associated with the Project that will be constructed in Deuel County, SD is anticipated to be routed along edges of fields, roadways, or other existing linear infrastructure, similar to existing distribution lines.<sup>227</sup>

142. The Applicant will notify local airports about the Project and new towers in the area to reduce the risk to crop dusters. The Applicant will coordinate with landowners within and proximal to the Project regarding crop dusting activities.<sup>228</sup>

143. The Applicant is coordinating with applicable emergency and non-emergency response staff for the area, such as local law enforcement agencies, Emergency 911 services, fire departments, and ambulance services. Construction and operation of the Project is anticipated to have minimal impacts on the security and safety of local residents and the general public.<sup>229</sup>

144. The Applicant will coordinate with regional air ambulance, sheriff's offices, and fire services to develop a safety plan during construction and operations of the Project. The Applicant will provide information about the Project and answer any questions first response teams may have regarding Project plans and details.<sup>230</sup>

145. the following security measures will be enacted to reduce personal injury or property damage:

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<sup>225</sup> *Id.* at §9.8.2.1.

<sup>226</sup> Site Permit Application at §9.8.2.2.

<sup>227</sup> *Id.*

<sup>228</sup> *Id.*

<sup>229</sup> *Id.* at §9.8.3.1.

<sup>230</sup> *Id.* at §9.8.3.3.



- All Project facilities will be equipped with sufficient security measures throughout construction and during operation of the Project. These measures may include temporary and/or permanent fencing, warning signs, and secure locks on equipment and facilities;
- Security measures will be constructed where deemed necessary by the Applicant at the request of landowners;
- Necessary safety training will be provided to construction and operation staff;
- Regular maintenance and inspections of the turbines and associated facilities will be conducted to assess potential blade failures and minimizing blade throw potential; and
- Setbacks from roads, property lines, homes, and other infrastructure have been included in Project design. The applied setback distances promote safety and mitigate potential damage from any unanticipated and unlikely tower or blade failures.

#### **J. Hazardous Materials**

146. The Project Area is primarily rural and used for agriculture. Potential hazardous materials within the Project Area may be associated with agricultural activities and material uses, including herbicides, pesticides, petroleum products (fuel and lubricants), solid and liquid waste disposal, and water supply wells (domestic and agricultural). Farmstead facilities may also contain lead-based paint, asbestos (shingles, insulation, etc.), and polychlorinated biphenyls (in electrical transformers).<sup>231</sup>

147. To avoid spill-related impacts, the Applicant will develop a Spill Prevention, Control and Countermeasures (SPCC) Plan that will outline measures that will be implemented to prevent accidental releases of fuels and other hazardous substances and describes response, containment, and cleanup procedures.<sup>232</sup>

148. Because the Project will avoid identified hazardous waste sites, no mitigative measures are proposed. Wastes, fluids, or pollutants that are generated during construction and operation of the Project will be handled, processed, treated, stored, and disposed of in accordance with Minn. R. Ch. 7045 and local requirements.<sup>233</sup>

#### **K. Soils and Topography**

149. Construction and operation of wind turbines and associated Project facilities may increase the potential for soil erosion or compaction. In some locations, some prime farmland may be converted from conventional agricultural uses to wind energy generation use. It is anticipated that the Project will convert up to 82.19 acres out of agricultural production for Project facilities (turbines, access roads, Project Substation, and O&M facility).<sup>234</sup>

150. A National Pollutant Discharge Elimination System (NPDES) permit to discharge stormwater from construction facilities will be obtained by the Applicant from the MPCA. Best

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<sup>231</sup> Site Permit Application at §9.9.

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*

<sup>234</sup> Site Permit Addendum at 2.

Management Practices (BMPs) will be used during construction and operation of the Project to protect topsoil and adjacent resources and to minimize soil erosion. A SWPPP will be developed prior to construction that will include BMPs such as silt fencing, revegetation plans, and management of exposed soils to prevent erosion.<sup>235</sup>

151. Following completion of construction, all impacted property not required for continuing operations of the Project facilities will be restored to a reasonably similar condition to its original condition. Reclamation efforts will include restoration actions to eliminate areas of soil compaction and to replace removed topsoil to its original location. Except for de minimus amounts that are removed as a consequence of construction, topsoil shall not be removed from the property without the consent of the landowner.

152. Topography within the Project Area is gently rolling moraine. Steeper relief occurs in valleys along the eastern edge of the Project Area formed by Lazarus and Canby creeks. Siting and construction of the turbines, associated facilities, access roads, and collection/transmission lines will require some grading. However, significant impacts to topography are not anticipated because the layout and siting will minimize cut and fill requirements by utilizing existing topographic contours as much as possible.<sup>236</sup>

#### **L. Groundwater Resources**

153. The Applicant does not anticipate any impacts to groundwater resources during construction or operation of the Project as groundwater resources in the Project Area are at depths greater than proposed foundation depths. Lincoln-Pipestone Rural Water System will be consulted to avoid any impacts to its system from the development of this Project.<sup>237</sup>

154. Structure foundations will generally range from 7 ft to 10 ft in depth. This is above the typical minimum depth of the bedrock aquifers underlying the Project facilities and is generally expected to be above the water table in surficial aquifers. Construction dewatering may be required at certain locations of the Project and, if needed, the Applicant will conduct dewatering in accordance with applicable rules and regulations and obtain necessary permits.<sup>238</sup>

155. Water supply needs for the Project are limited and relate to water needed during construction (e.g., temporary concrete batch plant, etc.) and domestic water supply for the O&M facility. If any new wells are necessary to support the construction activities, they will be permitted in accordance with MDH well requirements. Water supply for the proposed O&M facility will be satisfied with either an on-site well or rural water service (if available).<sup>239</sup>

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<sup>235</sup> Site Permit Application at §9.14.

<sup>236</sup> Site Permit Application at §9.13.

<sup>237</sup> Site Permit Application at §9.15.2.

<sup>238</sup> *Id.*

<sup>239</sup> *Id.*

156. The Applicant will continue to work with the landowners to identify springs and any additional wells near the Project. If construction adversely affects a well, the damaged well will be restored to its former quality, to the extent practicable, or replaced.<sup>240</sup>

### **M. Surface Water and Floodplain Resources**

157. The Project Area is within the Minnesota River Watershed. Furthermore, the Project Area lies within the Lac qui Parle River major watershed, the Florida Creek, Judicial Ditch No. 1, Upper Lazarus Creek, Canby Creek, South Slough and Twin Lake minor watersheds. Surface water within the Project Area flows northeast towards the Minnesota River. Major waterbodies in the Project Area include the Florida Creek, Lazarus Creek, and Canby Creek.<sup>241</sup>

158. Eighteen Public Waters Inventory (PWI) watercourses and one county ditch are within the Project Area. Most notable watercourses include Canby, Lazarus, and Florida creeks. Six PWI basins are located within the Project Area, the largest being Victors Slough, located within Bohemian State WMA on the southern boundary of the Project Area.<sup>242</sup>

159. The Project has been designed to avoid impacts to waterbodies and watercourses to the extent possible. The wind turbines and access roads will be built on higher elevations and ridges, which will avoid impacts to lakes, streams, basins, and wetlands located in the lower elevation areas of the Project Area. Underground electric feeder and collector lines and crane paths will cross waterbodies. However, these impacts will be temporary during construction of the Project and will be minimized to the extent possible. Impacts are expected to be minimal. If access roads cross waterbodies, they will be designed to maintain stream flow by using culverts.<sup>243</sup>

160. Potential impacts to surface water resources from construction of access roads, turbine sites, and collection lines when the ground is disturbed by excavation, grading, and construction traffic could include erosion from increased surface water runoff, sedimentation, discharges of dewatering to groundwater, and diversion of watercourses.<sup>244</sup>

161. No turbines will be placed in designated trout stream areas. Electric feeder and collector lines will be installed under Canby Creek and its tributaries by directional boring, and no work will be conducted within the ordinary high watermark or would affect the course, current, or cross-section of designated trout streams.<sup>245</sup>

162. No turbines or access roads will be placed in any PWI waters or watercourses. Electric feeder and collector lines will be installed by directional drill method under Canby and

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<sup>240</sup> *Id.* at §9.15.3.

<sup>241</sup> Site Permit Application at §19.16.1.

<sup>242</sup> *Id.*

<sup>243</sup> *Id.*

<sup>244</sup> *Id.*

<sup>245</sup> *Id.*

Lazarus creeks and an unnamed tributary to Lazarus Creek, which are designated as PWI. No work will be conducted within the ordinary high watermark or would affect the course, current, or cross-section of any PWI waters or watercourses.<sup>246</sup>

163. No turbines, turbine access roads, or substations are located within a FEMA designated 100-year floodplain. Electric feeder and collector lines will cross the 100-year floodplain area associated with Lazarus, and Canby creeks.<sup>247</sup>

164. No turbines or access roads will be placed in any 303(d) impaired waters or watercourses. Electric feeder and collector lines will be installed by directional drill method under Lazarus Creek.<sup>248</sup>

165. Access roads constructed adjacent to streams and drainageways will be designed and constructed to have a low-profile that will not impede natural drainage patterns. If construction occurs across drainage ways or drain tiles, it will be conducted in a manner to avoid adverse impacts. If necessary, culverts will be installed within access roads that are constructed in drainageways to allow cross drainage and prevent impoundment of water. Collection/transmission lines will be installed underground, which will not alter drainage patterns. If needed, drain tile lines will be located in the field and the drainage functions provided by these lines will be maintained.<sup>249</sup>

166. A Utility Crossing License will be applied for crossings of PWI by electric feeder and collector lines.<sup>250</sup>

## **N. Wetlands**

167. Wind turbines will be built on higher elevation and ridges and will avoid wetlands on the lower positions in the landscape. Access roads and operations facilities will be designed to minimize impacts on wetlands. Temporary impacts associated with electric feeder and collector lines, and crane paths will also be minimized. Installation of underground utilities is expected to avoid impacts by boring under PWI as necessary and will minimize impacts to wetlands or where possible make them coincident with other impacts (e.g., crane walks). The Applicant will minimize tree clearing in wetlands to the extent practicable.<sup>251</sup>

168. Estimated impacts to wetlands based on completed field surveys of proposed turbine sites, access roads, and the Project O&M site and desktop review of NWI data of collection lines and crane path areas associated with the Project are 8.7 acres of temporary impacts and 0.51 acres of permanent impacts. To the maximum practicable extent, the Applicant will continue to minimize temporary and permanent impacts using the wetland/waterbody field

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<sup>246</sup> Site Permit Application at §19.16.1.

<sup>247</sup> *Id.*

<sup>248</sup> *Id.*

<sup>249</sup> *Id.*

<sup>250</sup> *Id.*

<sup>251</sup> Site Permit Application at §9.17.2.

survey and desktop results with slight modifications to access roads, collection lines and crane paths of the Project layout.<sup>252</sup>

169. The Applicant is working in consultation with the MNDNR to avoid and minimize impacts to calcareous fens to the extent practicable. The Applicant anticipates that all impacts to identified calcareous fens can be avoided and has requested MNDNR concurrence for these areas.<sup>253</sup>

170. The Applicant will design the Project to avoid or minimize wetland impacts, and will apply erosion control measures identified in the MPCA Stormwater BMPs Manual, such as using silt fence to minimize impacts to adjacent water resources. Disturbed surface soils will be stabilized at the completion of the construction process to minimize the potential for sedimentation in wetlands.<sup>254</sup>

## **O. Vegetation**

171. Approximately 82.19 acres (0.36% of the Project Area) will be permanently converted to non-agricultural land use, and approximately 49.61 acres (0.2% of Project Area) of prime farmland will be permanently converted to non-agricultural use.<sup>255</sup>

172. The Project has been designed to avoid permanent impacts to MNDNR mapped native prairie, native plant communities, and all sites of biodiversity significance ranked outstanding, high, moderate, and below. As such, there are no turbines, access roads, or the O&M facility within these natural features.<sup>256</sup>

173. Temporary impacts to MDNR-mapped native prairie areas is anticipated to be 0.43 acres.<sup>257</sup> These impacts are associated with the collection lines and crane paths. The Applicant will continue to coordinate with MNDNR on these impacts and appropriate mitigation measures, which may include necking down the workspace, boring collection under native prairie tracts where practicable, and updating the design where practicable.

174. The Applicant will, in consultation with the MNDNR, prepare a prairie protection and management plan. The plan will be submitted to the MPUC and MNDNR after issuance of the site permit and prior to construction.

## **P. Wildlife**

175. Baseline wildlife surveys were conducted in 2008 to support the initial site permit application. Based on agency coordination, the Applicant re-initiated Tier 3 studies in 2016 to

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<sup>252</sup> Site Permit Addendum at 5.

<sup>253</sup> Site Permit Application at §9.17.2.

<sup>254</sup> Site Permit Application at §9.17.3.

<sup>255</sup> Site Permit Addendum at 5.

<sup>256</sup> Site Permit Application at §9.18.2.

<sup>257</sup> Site Permit Addendum at 5.

support this Application without completing the Tier I/II assessment.<sup>258</sup> These studies include include avian use surveys, raptor nest surveys, avian grassland surveys, bat acoustic surveys, northern long-eared bat presence/absence acoustic surveys, and grassland condition and Dakota skipper/Poweshiek.<sup>259</sup>

176. The Applicant conducted raptor nest surveys in 2008, 2016, and 2017, which included identification of bald eagle and other raptor nests. The 2016 raptor nest survey did not identify any bald eagle nests in the Project Area, but seven within 10 miles. Two bald eagle nests were identified within approximately 1 mile of the Project: one west of the Project in adjacent Deuel County, South Dakota south of Lake Cochrane and the South Slough Complex and the other east of the Project along the Lac qui Parle River. The survey also identified 24 additional raptor nests, including red-tailed hawk, great-horned owl, and unidentified owl and raptor species.<sup>260</sup>

177. In addition to the preconstruction avian use surveys conducted at the Project, preconstruction avian use study results from other wind energy facilities in the region are informative for assessing regional trends in avian use and species composition. In general, these studies show that common, disturbance-tolerant passerine species are the most-observed species at wind energy facilities in predominantly agricultural landscapes.<sup>261</sup> The potential for habitat fragmentation impacts to birds is low because the Project is sited on a previously disturbed landscape. Furthermore, the Project has been designed to avoid placing turbines and access roads in MNDNR-mapped native prairie, native plant communities, and sites of biodiversity significance.<sup>262</sup>

178. Project operation may result in avian mortality from collision with the Project's turbines or other structures. Based on the results of post-construction monitoring at similar facilities located on agricultural landscapes in southern Minnesota, estimated bird carcass rates at the Project would be expected to be within the range reported from studies at other wind facilities in the region.<sup>263</sup>

179. Between the avian grassland survey and the avian use surveys, one state listed endangered species – the loggerhead shrike – was observed during avian grassland surveys. Applicant will avoid impacts to loggerhead shrikes.

180. Mammals that may occur in the Project Area use the food and cover available from agricultural fields, grasslands, farm woodlots, wetland areas, and wooded ravines. Grassland areas and woody vegetation are also habitat for a variety of small mammals. White-tailed deer, raccoons, skunks, coyotes, fox, and squirrels are all common in the Project Area.<sup>264</sup>

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<sup>258</sup> Site Permit Application at §9.19.1.

<sup>259</sup> *Id.* at §9.19.1.2.

<sup>260</sup> *Id.*

<sup>261</sup> Site Permit Application at §9.19.1.4.

<sup>262</sup> *Id.* at §9.19.2.1.

<sup>263</sup> *Id.*

<sup>264</sup> *Id.* at §9.19.1.5.

181. The Applicant conducted bat acoustic surveys in 2008 and 2016. Both the 2008 and 2016 surveys documented predominately low-frequency bats (e.g., big brown bat, silver-haired bat, or hoary bat).

182. Seven of the eight bat species known to occur in Minnesota may migrate through the Project Area; however, bat habitat within the Project Area is limited to small groves of trees and fencerows near homesteads and the riparian corridors along a few small streams with fringe wetlands. Outbuildings and other anthropogenic structures may be used as roosting habitat by some species (e.g., little brown myotis and big brown bat). Cultivated crops also may provide marginal foraging habitat for bat species adapted to use such habitat.<sup>265</sup>

183. The Project is located within the range of the federally listed northern long-eared bat, and individuals may occur within the Project Area during spring through fall migration. The Applicant conducted a northern long-eared bat presence/absence acoustic survey in 2016. No potential northern long-eared bat calls were identified. As such, northern long-eared bats are unlikely to occur in the habitat sampled.<sup>266</sup>

184. The Applicant is committed to minimizing wildlife impacts within the Project Area and has designed the Project to minimize avian impacts by avoiding high use wildlife habitat, using monopole towers to minimize perching, placing electrical collection lines underground, and minimizing infrastructure. Applicant will continue to work with MNDNR and USFWS to adapt the BBCS and mitigation measures to minimize potential impacts.<sup>267</sup>

#### **Q. Rare and Unique Natural Resources**

185. A query of the MDNR Natural Heritage Information System (“NHIS”) was completed to determine if there are rare species of other significant features in the Project area. NHIS data show that there are two state-listed threatened or endangered insects (butterflies, also federally listed) and one plant in the Project Area. There are documented occurrences of one plant and two bird species within 5 miles of the Project Area that are state-listed endangered or threatened. In addition, there are 17 species of special concern (three insects, one mussel, seven plants, three birds, one amphibian, two mammals, and one fungus) and two watchlist birds that do not have a legal status, but are being tracked by the MNDNR, have been documented within 5 miles of the Project Area.<sup>268</sup>

186. Based on preliminary site assessments, the Project Area is mostly cultivated cropland, hayfields, or heavily grazed pasture. There are two state-listed threatened or endangered insect records (butterflies, also federally listed) and one state-listed plant within the

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<sup>265</sup> *Id.* at §9.19.2.2.

<sup>266</sup> *Id.*

<sup>267</sup> *Id.* at 9.19.3.

<sup>268</sup> Site Permit Application at §9.20.

Project Area. Turbines have been sited to avoid MNDNR mapped native prairie, native plant communities, and sites of biodiversity significance.<sup>269</sup>

187. The Applicant will continue to coordinate with the USFWS and MNDNR on native prairie. Although no impacts to rare or unique natural resources are anticipated by the Project, a pre-construction inventory of existing native prairie, woodlands, and wetland will be conducted in the vicinity of planned facilities. The Applicant will avoid the rare and unique resources identified to the extent practicable.<sup>270</sup>

## **R. Cultural and Archaeological Resources**

188. The Minnesota State Historic Preservation Officer (SHPO) and the Office of the State Archaeologist (OSA) were contacted in March 2017 to initiate Project coordination.<sup>271</sup>

189. Cultural resource specialist staff at Merjent conducted a background literature review of the Project Area and a surrounding, 1-mile (1.6 km) buffer. The literature review revealed the presence of eight previously reported archaeological sites within the Project Area. All eight of the sites are prehistoric. Five of the sites are artifact scatters, two are prehistoric stone features, and one is a single artifact find spot. None of the sites have been evaluated for eligibility for the National Register of Historic Places (NRHP).<sup>272</sup>

190. Merjent retrieved information from the Minnesota Historical Society regarding previously inventoried historic structures located within a 1-mile-wide (1.6 km) buffer review area, including and surrounding the Project Area. Merjent's review of the information obtained at Minnesota Historical Society identified nine previously inventoried historic structures within 1-mile (1.6 km) of the proposed Project Area.<sup>273</sup>

191. Archaeological surveys of project designs were conducted between May 31 and June 1, 2016; August 16 and 17, 2016; and October 19 and 25, 2017. Seven archaeological sites were identified during the survey, but all sites were recommended not eligible. It was recommended that the Project would have no effect on archaeological resources eligible for listing in the NRHP.<sup>274</sup> Unsurveyed areas within the Project's construction corridor for the revised layout in the Site Permit Addendum will be surveyed and the results submitted to SHPO for review.<sup>275</sup>

192. Archaeological resources may be impacted directly during the construction of a wind energy facility because construction within the turbine footprint, cable trenching, access

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<sup>269</sup> *Id.*

<sup>270</sup> *Id.*

<sup>271</sup> Site Permit Application at §9.6.1.

<sup>272</sup> *Id.*

<sup>273</sup> *Id.*

<sup>274</sup> *Id.*

<sup>275</sup> Site Permit Addendum at 4.



roads, and borrow areas could impact unknown archaeological resources. In addition, construction of turbines or other protruding structures may impact viewshed integrity from existing architecture inventory resources.<sup>276</sup>

## **X. SITE PERMIT CONDITIONS**

193. The Draft Site Permit issued on May 25, 2018, includes a number of proposed permit conditions, some of which have been discussed above. Many of these conditions were established as part of the site permit proceedings or other wind turbine projects permitted by the Commission. Comments received by the Commission have been considered in development of the Draft Site Permit for this Project.

194. The Draft Site Permit includes one Special Condition related to Obstruction Marking and Lighting.<sup>277</sup>

195. Intervenor's requested that Flying Cow Wind also agree to a special permit condition regarding local labor reporting, similar to what was agreed to in the Nobles 2 project. Intervenor's proposed condition states:

The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in construction fo the project. Reports shall include (a) the gross number of hours worked by or full-time equivalent workers who are Minnesota residents, as defined in Minn. Stat. 290.01, Subd. 7, during the quarter in which they participated in construction of the project; (b) the gross number of hours worked by or full-time equivalent workers of people who live in other states but are within 150 miles of the project; and (c) total gross hours or full-time equivalent workers. Permittee shall work with its contractor to determine suitable reporting metrics. Reports shall begin with the commencement of site construction and continue until completion of site restoration.

196. On July 18, 2018, Flying Cow Wind provided its suggested changes to the Draft Site Permit.<sup>278</sup>

197. Flying Cow Wind proposed modifications to Draft Site Permit Special Condition 6.1 regarding Obstruction Marking and Lighting. Flying Cow Wind proposed the modifications because the FAA has not yet completed the project-specific review and approval to utilize ADLS for the Project. If FAA does not grant approval, FCW agrees to install an alternative system approved by applicable agencies. Flying Cow Wind's proposed modified Special Condition 6.1 is as follows:

To mitigate potential effects of night-time aviation lighting, the Permittee shall, subject to applicable state and federal approvals or determinations, install an

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<sup>276</sup> Site Permit Application at §9.6.3.

<sup>277</sup> Draft Site Permit at §6.1.

<sup>278</sup> Comment Letter of Flying Cow Wind (July 18, 2018) (eDockets \_\_\_\_\_).

~~Aircraft Detection Lighting System (ADLS), which provides coverage for the Bitter Root Wind Project to mitigate the aesthetic and visual effects of the FAA's night-time aviation lighting requirements. In the event ADLS is not approved for the Project, Permittee shall install such alternative night-time aviation lighting design as may be approved for the Project by applicable state and federal agencies.~~

198. Flying Cow Wind also proposed modifications to Intervenor's suggested permit condition regarding local labor reporting. Flying Cow Wind stated that it is willing to provide information regarding hiring of local labor, but objects to quarterly reporting of multiple metrics as unnecessary and onerous. Flying Cow Wind proposed modification to Intervenor's suggested special condition on local labor reporting is as follows:

~~The Permittee shall file quarterly a report with the Commission at the time of the pre-operation meeting within 45 days of the end of the quarter regarding construction workers that participated in construction of the project. The report Reports shall include a summary of the Permittees efforts to hire local construction workers and the percentage of construction workers that participated in construction of the project (a) the gross number of hours worked by or full-time equivalent workers who were Minnesota residents, as defined in Minn. Stat. 290.01, Subd. 7, during the quarter in which they participated in construction of the project or whose permanent residence is; (b) the gross number of hours worked by or full-time equivalent workers of people who live in other states but are within 150 miles of the project during construction of the project; and (c) total gross hours or full-time equivalent workers. Permittee shall work with its contractor to determine suitable reporting metrics. Reports shall begin with the commencement of site construction and continue until completion of site restoration.~~

Based on the foregoing Findings of Fact and the record in this proceeding, the ALJ recommends the adoption of the following:

### **CONCLUSIONS OF LAW**

1. Any of the foregoing Findings of Fact more properly designated as Conclusions of Law are hereby adopted as such.
2. The Commission and ALJ has jurisdiction over the Application pursuant to Minn. Stat. § 216F.04.
3. The Applicant, EERA, and the Commission have complied with all applicable procedural requirements for obtaining a Site Permit under Chapter 216F of the Minnesota Statutes and Chapter 7854 of the Minnesota Rules.
4. A public hearing was conducted in a community near the proposed Project. Proper notice of the public hearing was provided, and members of the public had the opportunity to speak at the public hearing and to submit written comments.

5. The Commission has the authority under Minn. Stat. § 216F.04 to place conditions in a LWECS site permit.

6. The Draft Site Permit contains a number of important mitigation measures and other reasonable conditions.

7. The ALJ concludes that a Site Permit for the Project should be conditioned in a number of respects, including those mitigation measures and other reasonable conditions included in the Draft Site Permit.

8. It is reasonable and appropriate to amend the Draft Site Permit to include those changes set forth in the foregoing Findings of Fact.

9. The Project, with the Draft Site Permit conditions revised as set forth above, satisfies the site permit criteria for an LWECS under Minnesota Statutes §§ 216F.03 and 216E03, Subd. 7 and meets all other applicable legal requirements.

10. The Project, with the permit conditions discussed above and included in the Draft Site Permit, does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act and/or the Minnesota Environmental Policy Act.

11. Any of the foregoing Conclusions of Law which are more properly designated Findings of Fact are hereby adopted as such.

Based on the Findings of Fact and Conclusions of Law contained herein and the entire record of this proceeding, the undersigned ALJ hereby makes the following:

**RECOMMENDATION**

The ALJ recommends that the Commission issue a site permit to Flying Cow Wind, LLC, to construct and operate the up to 152 MW Bitter Root Wind Project in Yellow Medicine County, Minnesota, and that the permit include the draft permit conditions amended as set forth in the foregoing Findings of Fact and Conclusions of Law.

Dated: \_\_\_\_\_

\_\_\_\_\_  
James E. LaFave  
Administrative Law Judge

**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

*In the Matter of the Application of Flying Cow  
Wind, LLC for a Certificate of Need for the  
152 MW Large Wind Energy Conversion  
System in Yellow Medicine County, Minnesota* )  
)  
)  
)  
)  
*In the Matter of the Application of Flying Cow  
Wind, LLC for a Site Permit for the up to 152  
MW Large Wind Energy Conversion System  
in Yellow Medicine County, Minnesota* )  
)  
)

Docket No. IP-6984/CN-17-676  
Docket No. IP-6984/WS-17-749  
OAH Docket No. 60-2500-35035

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that true and correct copies of the **Flying Cow Wind, LLC's Comments Regarding Proposed Permit Conditions; and Proposed Findings of Fact, Conclusions of Law, and Recommendations** have been served on this day by e-filing/e-serving to the following:

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Dated this 18<sup>th</sup> day of July, 2018

*/s/ Tammy J. Krause*

Tammy J. Krause