

## Crowned Ridge Wind II, LLC

**April 7, 2020**

Re: Notice for Start of Construction and Public Liaison Notice  
Crowned Ridge Wind II, LLC  
Crowned Ridge II Wind Farm

Dear Landowner, Law Enforcement Agency, and Local Governments:

I would like to inform you that Crowned Ridge Wind II, LLC (CRWII) plans to commence construction of the up to 300.6 megawatts (MW) Crowned Ridge II Wind Farm (Project) located in Deuel, Grant, and Codington counties, South Dakota no earlier than 30 days after the date of issuance of the Final Decision and Order which is provided as Exhibit A..

Enclosed, for your information, please find the following Project-related documents:

- Exhibit A: A copy of the Final Decision and Order Granting Permit to Construct Facility
- Exhibit B: Detailed Safety Information
- Exhibit C: Project construction/maintenance damage compensation plans & procedures
- Exhibit D: Project Public Liaison Officer Contact Information

CRWII will be working with Blattner Energy Inc. (Blattner) who will be constructing the Project. In addition to the Public Liaison Officer, Brian Riniker who you can contact, CRWII will have an on-site representative, Dick Rausch, who will oversee Project construction in cooperation with Blattner.

For your information, we have also included the South Dakota Public Utilities Commission address, phone number and website as well as the contact information for the onsite construction manager.

**South Dakota Public Utilities Commission**  
Capitol Building, 1<sup>st</sup> Floor  
500 E. Capitol Ave.  
Pierre, South Dakota 57501-5070  
(605)773-3201  
<https://puc.sd.gov/>

**Crowned Ridge Wind II, LLC**  
Dick Rausch  
(512) 970-6254  
[Dick.Rausch@nexteraenergy.com](mailto:Dick.Rausch@nexteraenergy.com)

**Brian Riniker – Public Liaison Officer**  
5701 South Corporate Place Suite 1  
Sioux Falls, SD 57108  
(605) 777-4054  
[CrownedRidgePLO@ulteig.com](mailto:CrownedRidgePLO@ulteig.com)

We look forward to addressing any questions you may have and working with you through the construction and operations of the Project.

Sincerely,



Tyler Wilhelm  
Senior Project Manager  
Crowned Ridge Wind II, LLC



**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION )  
BY CROWNED RIDGE WIND II, LLC FOR )  
A PERMIT OF A WIND ENERGY )  
FACILITY IN DEUEL, GRANT AND )  
CODINGTON COUNTIES )  
)**

**FINAL DECISION AND ORDER  
GRANTING PERMIT TO  
CONSTRUCT FACILITY; PERMIT  
CONDITIONS; NOTICE OF ENTRY**

**EL19-027**

**APPEARANCES**

Commissioners Gary Hanson, Chris Nelson, and Kristie Fiegen.

Miles Schumacher, Lynn, Jackson, Shultz and Lebrun, PC, 110 N. Minnesota Ave., Suite 400, Sioux Falls, South Dakota 57104, and Brian Murphy, NextEra Energy Resources, LLC, 700 Universe Blvd., Juno Beach, FL 33408, appeared on behalf of Applicant, Crowned Ridge Wind II, LLC.

Kristen Edwards and Amanda Reiss, 500 E. Capitol Ave., Pierre, South Dakota 57501, appeared on behalf of the South Dakota Public Utilities Commission Staff.

A.J. Swanson, Swanson P.C., 27452 482<sup>nd</sup> Ave., Canton, SD 57013, appeared on behalf of intervenors Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz.

Allen Robish, 47278 161<sup>st</sup> St., Strandburg, SD 57265, appeared pro se.

Amber Christenson, 16217 466<sup>th</sup> Ave., Strandburg, SD 57265, appeared pro se.

Kristi Mogen, 15160 471<sup>st</sup> Ave., Twin Brooks, SD 57269, appeared pro se but did not attend the evidentiary hearings.

**PROCEDURAL HISTORY**

On July 9, 2019, the South Dakota Public Utilities Commission (Commission) received an Application for a Facility Permit for a wind energy facility (Application) from Crowned Ridge Wind II, LLC (Crowned Ridge Wind II or Applicant) to construct a wind energy conversion facility to be located in Deuel County, Grant County and Codington County, South Dakota (Project).<sup>1</sup> Also on July 9, 2019, Crowned Ridge Wind II filed the prefiled Direct Testimony and Exhibits of Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

On July 11, 2019, the Commission electronically transmitted notice of the filing and the intervention deadline of September 9, 2019, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv.

On July 11, 2019, the Commission issued a Notice of Application; Order for and Notice of Public Input Meeting; Notice of Opportunity to Apply for Party Status (Order). The Order

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<sup>1</sup> See Ex. A1 (Application).

scheduled a public input meeting for August 26, 2019, at 5:30 p.m., CDT, at the Whitewood Room, Watertown Event Center, 1901 9<sup>th</sup> Ave. SW, Watertown, South Dakota.

On July 11, 2019, Crowned Ridge Wind II filed updates to its Application.

On July 16, 2019, Crowned Ridge Wind II filed copies of the Application with the Deuel, Grant, and Codington County auditors pursuant to SDCL 49-41B-5.2.

On July 29, 2019 Crowned Ridge Wind II filed an Affidavit of Landowners Mailings pursuant to SDCL 49-41B-5.2.

On July 31, 2019, the Commission issued an Order Assessing Filing Fee; Order Authorizing Executive Director to Enter into Consulting Contracts; Order Granting Party Status (Amber Christenson, Kristi Mogen, Allen Robish).

On August 6, 2019, Crowned Ridge Wind II requested that pages 3-6 of the Intervenors' Application for Party Status filed on August 5, 2019, be redacted due to confidentiality concerns.

On August 26, 2019, the Commission issued an Order Granting Party Status (Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz).

On August 26, 2019, a public input meeting was held as noticed at the Whitewood Room, Watertown Event Center, 1901 9<sup>th</sup> Ave. SW, Watertown, South Dakota.

On September 10, 2019, Staff filed a Motion for Adoption of Procedural Schedule.

On September 11, 2019, Affidavits of Publication were filed by Staff confirming that the Notice of Public Meeting was published in the *Watertown Public Opinion* on July 24, August 7, and August 21, 2019; in the *Grant County Review* on July 24, August 7, and August 21, 2019; in the *Clear Lake Courier* on July 24, August 7, and August 21, 2019; and in the *South Shore Gazette* on July 25, August 8, and August 22, 2019.

On September 20, 2019, the Commission issued an Order Granting Motion Establishing Procedural Schedule.

On September 20, 2019, the Commission issued an Order Denying Request for Confidentiality.

On September 20, 2019, Crowned Ridge Wind II filed the prefiled Supplemental Testimony and Exhibits of Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Christopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney, and on October 21, 2019, filed Corrected Direct Testimony and Exhibits of Sarah Sappington.

On October 1, 2019, the Commission issued an Order for and Notice of Evidentiary Hearing scheduling the evidentiary hearing for February 4-7, 2020.

On December 2, 2019, the Commission issued an Order Granting Motion to Appear Telephonically in response to a November 18, 2019, request by the Intervenor.

On December 9, 2019, Staff filed the prefiled Direct Testimony and Exhibits of David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.

On December 12, 2019, Intervenors filed the prefiled testimony of Garry Ehlebracht,

Steven Greber, Amy Rall, and Laretta Kranz. On January 27, 2020, Intervenors filed their Exhibits.

On January 8, 2020, Crowned Ridge Wind II filed the prefiled Rebuttal Testimony and Exhibits of Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael Marous, and Dr. Christopher Ollson.

On January 22, 2020, the Commission issued an Order for and Notice of Motion Hearing to hear Crowned Ridge Wind II's Motion to Strike prior to the start of the February 4, 2020, evidentiary hearing. On February 14, 2020, the Commission issued an Order Granting, In Part, Motion to Strike.

On January 23, 2020, Staff filed the prefiled Supplemental Testimony and Exhibits of David Lawrence.

On January 29 and January 30, 2020, pro se Intervenor Christenson filed her prefiled Exhibits.<sup>2</sup>

On February 4, 2020, the evidentiary hearing commenced as scheduled, and concluded on February 6, 2020.

On February 14, 2020, the Commission issued an Order Setting Post-Hearing Briefing Schedule and Decision Date.

On February 27 and March 2, 2020, post-hearing briefs were filed by Crowned Ridge Wind II, Staff, pro se Intervenors, and Intervenors. On March 16, 2020, Intervenors filed a written closing argument.

On March 17, 2020, at its regularly scheduled meeting, the parties made oral arguments. After questions of the parties by the Commissioners and public discussion among the Commissioners, the Commission voted unanimously to grant a permit to construct the Project to Crowned Ridge Wind II, subject to the approved Permit Conditions.

Having considered the evidence of record, applicable law, and the briefs and arguments of the parties, the Commission makes the following Findings of Fact, Conclusions of Law, and Final Decision and Order Granting Permit to Construct Facility:

## **FINDINGS OF FACT**

### **I. PROCEDURAL FINDINGS.**

1. The Procedural History set forth above is hereby incorporated by reference in its entirety in these Procedural Findings. The procedural findings set forth in the Procedural History are a substantially complete and accurate description of the material documents filed in this docket and the proceedings conducted and decisions rendered by the Commission in this matter.

### **II. PARTIES.**

2. Crowned Ridge Wind II is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra).<sup>3</sup> NextEra, through its affiliates, generates over 19,000 MWs in 29

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<sup>2</sup> Pro se Intervenors Christenson, Robish, and Mogen did not file prefiled testimony. Robish and Mogen did not file exhibits.

<sup>3</sup> Ex. A1 at 1 (Application).

states and Canada.<sup>4</sup>

3. Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively, Intervenors) and Amber Christenson, Allen Robish, and Kristi Mogen (collectively, pro se Intervenors) were granted party status.

4. The South Dakota Public Utilities Commission staff (Staff) fully participated as a party in this matter, in accordance with SDCL 49-41B-17(1).

### III. PROJECT DESCRIPTION.

5. The proposed project is an up to 300.6 MW wind facility to be located in Codington County, Deuel County, and Grant County, South Dakota (Project).<sup>5</sup> The Project would be situated within approximately 60,996-acres in the townships of Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana, South Dakota (Project Area) and will include the following: (i) up to 132 wind turbine generators with 117 General Electric (GE) 2.3 turbines and 15 GE 2.1 turbines; (ii) access roads to turbines and associated facilities; (iii) underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collector substation; (iv) underground fiber-optic cable for turbine communications co-located with the collector lines; (v) the low-side of a 34.5 to 230-kV collector substation; (vi) two permanent meteorological tower; (vii) an operations and maintenance facility; and (viii) temporary construction areas, including laydown and batch plant areas.<sup>6</sup> The estimated construction cost associated with the wind facility is approximately \$425 million.<sup>7</sup> Fluctuations in Project costs could be as much as 20% percent, dependent on final micro-siting and MISO interconnection costs.<sup>8</sup> The Project will utilize the Crowned Ridge II 5-mile generation tie line and the Crowned Ridge Wind I's 34-mile 230-kV generation tie line and a new reactive power compensation substation<sup>9</sup> to transmit the generation from the Project's collector substation to the Project's point of interconnection located at the Big Stone South 230-kV Substation, which is owned by Otter Tail Power Company.<sup>10</sup> Applicant has no plans for future expansion of the Project.<sup>11</sup>

6. As a result of demand for the facility, Applicant has executed a purchase and sales agreement (PSA) with Northern States Power Company (NSP) and will transfer the Project, including this Permit, to NSP prior to commercial operations.<sup>12</sup> The commercial operation date for the Project is projected to be in the fourth quarter of 2020.<sup>13</sup>

7. Applicant submitted testimony explaining that it may defer the construction of 100 MWs based on the results of MISO and SPP interconnection studies and costs.<sup>14</sup> Applicant may defer the 100 MWs up to four years, with the understanding that if Applicant decides to construct

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<sup>4</sup> Ex. A5 at 1 (Wilhelm Direct Testimony).

<sup>5</sup> Ex. A1 at 1 (Application); Ex A1-A (Figures) and Ex. A11-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).

<sup>6</sup> Ex. A1 at 1, 18-26 (Application); Ex. A1-A (Figures 4a, 4b, and 5); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).

<sup>7</sup> Ex. A1 at 18 (Application).

<sup>8</sup> *Id.* at 19.

<sup>9</sup> The 5-mile generation tie line was approved in Docket No. EL18-018, while the 34-mile transmission gen tie line and reactive compensation substation were approved in Docket No. EL17-050.

<sup>10</sup> Ex. A1 at 1 (Application).

<sup>11</sup> *Id.* at 106.

<sup>12</sup> *Id.* at 1-2, 15; Ex. A6 at 3 (Hart Direct Testimony).

<sup>13</sup> Evid. Hrg. Tr. at 31 (Wilhelm) (February 4, 2020).

<sup>14</sup> Ex. A13 at 2-4 (Hart Supplemental Testimony); Ex. A13-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral); Evid. Hrg. Tr. at 112-113, 128-130 (Hart) (February 4, 2020).

after four years, it will need to certify to the Commission that the 100 MW array continues to comply with the conditions of the Facility Permit.<sup>15</sup>

8. Applicant has entered into lease and easement agreements with private landowners within the Project Area for the placement of Project infrastructure.<sup>16</sup> Applicant anticipates that the life of the Project will be approximately 25 years, which is consistent with the Project's contracted term.<sup>17</sup> At the end of the Project's contracted life there may be opportunities to extend the life of the Project by repowering the Project through retrofitting the turbines and power system with upgrades based on new technology, which may allow the wind farm to produce efficiently and successfully for many more years.<sup>18</sup>

9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning.<sup>19</sup> The Project will be decommissioned in accordance with applicable state and county regulations.<sup>20</sup> Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.<sup>21</sup>

10. The record demonstrates that Crowned Ridge Wind II submitted substantial evidence on the potential cumulative impacts of the Project, and that the Project will not have a significant impact.<sup>22</sup>

#### **IV. APPLICABLE STATUTES AND REGULATIONS FOR A WIND ENERGY FACILITY PERMIT.**

13. The following South Dakota statutes are applicable: SDCL 49-41B-1, 49-41B-2, 49-41B-4, 49-41B-5.2, 49-41B-11 through 49-41B-19.1, 49-41B-22, 49-41B-25, 49-41B-25.2, 49-41B-26, 49-41B-35, 49-41B-36, 49-41B-39, and applicable provisions of SDCL Chapters 1-26 and 15-6.

14. The following South Dakota administrative rules are applicable: ARSD Chapters 20:10:01 and 20:10:22.

15. Pursuant to SDCL 49-41B-22, Applicant has the burden of proof to establish that:

- a) The proposed facility will comply with all applicable laws and rules;
- b) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic

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<sup>15</sup> Ex. A13 at 3 (Hart Supplemental Testimony); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral); 49-41B-27.

<sup>16</sup> Ex. A1 at 27, 107 (Application) and Ex. A17 at 7 (Wilhelm Supplemental Testimony).

<sup>17</sup> Ex. A1 at 107 (Application).

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

<sup>19</sup> *Id.* at Appendix N and Ex. A4 at 9-11 (Thompson Direct Testimony).

<sup>20</sup> Ex. A1 at 107 (Application).

<sup>21</sup> Ex. S7, Permit Conditions No. 33.

<sup>22</sup> Ex. A1-I (Sound Modeling Report) and Ex. A1-J (Shadow Flicker Modeling Report); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A12-2 (Updated Sound Study); Ex. A12-3 (Updated Shadow Flicker Study); Ex. A12-1 through Ex. A12-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).

condition of inhabitants or expected inhabitants in the siting area;

- c) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
- d) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

16. SDCL 49-41B-25 provides that the Commission shall make a finding that the construction of the facility meets all of the requirements of Chapter 49-41B.

17. There is sufficient evidence on the record for the Commission to assess the proposed Project using the criteria set forth above.

**V. SATISFACTION OF REQUIREMENTS FOR THE ISSUANCE OF A WIND ENERGY FACILITY PERMIT.**

**A. The proposed facility will comply with all applicable laws and rules.**

18. The evidence submitted by Crowned Ridge Wind II demonstrates that the Project will comply with applicable laws and rules.<sup>23</sup> Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.<sup>24</sup>

19. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.<sup>25</sup>

**B. The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.**

20. Applicant holds a Conditional Use Permit (CUP) from both Grant County and Codrington County, and a Special Exception Permit (SEP) from Deuel County,<sup>26</sup> which pursuant

<sup>23</sup> Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).

<sup>24</sup> At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.

<sup>25</sup> Ex. A1 through Ex. A29 (Application, Testimony, Exhibits); Ex. S1 (Kearney Direct Testimony) and Ex. S7 (Stipulated Conditions).

<sup>26</sup> Ex. A5 at 7-10 (Wilhelm Direct Testimony) Ex. A1-K (County Use Permits).



to SDCL 49-41B-22(2), demonstrates that the Project does not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants in the siting area. The following is evidence that the Project does not pose a threat of serious injury to the environment.

1. Environment.

21. The evidence demonstrates that the Project does not pose a threat of serious injury to the environment in the Project Area.<sup>27</sup> The evidence also shows that Crowned Ridge Wind II will implement reasonable avoidance and mitigation measures, as well as commitments, to further limit potential environmental impacts.<sup>28</sup>

22. With respect to geological resources, the evidence shows that construction of the Project will not pose a threat of serious injury to these resources.<sup>29</sup> The risk of seismic activity in the vicinity of the Project Area is “low” according to data from the South Dakota Department of Environment and Natural Resources.<sup>30</sup> The evidence further shows that the impact to geological resources from the Project will be minimal.<sup>31</sup>

23. The evidence demonstrates that the Project does not pose a threat of serious injury to soil resources, including prime farmland.<sup>32</sup> The Project will only impact approximately 1,940.2-acres of the 60,995-acre Project Area during construction, and only 76.2 acres on a permanent basis.<sup>33</sup> Table 11.3 of the Application sets forth additional detail on the temporary and permanent impacts from the Project, broken down by land cover type.<sup>34</sup> During and after construction a number of mitigation measures, including best management practices (BMP), a Storm Water Pollution Prevention Plan (SWPPP), and a Spill Prevention, Control, and Countermeasures Plan (SPCCP), will be implemented to minimize the impacts to soil resources.<sup>35</sup> Applicant has committed that during construction, it will protect topsoil and minimize soil erosion. Soil areas disturbed during construction will be decompacted and returned to preconstruction contours to the extent practicable and in accordance with landowner agreements.<sup>36</sup>

24. The evidence also demonstrates that the Project does not pose a threat of serious injury to hydrological resources.<sup>37</sup> The evidence shows there will only be limited and temporary impacts to: (i) groundwater resources; (ii) existing surface water resources; and (iii) current and planned water uses.<sup>38</sup> To minimize impacts, Applicant has committed to implement BMPs, a SWPPP, and SPCCP to mitigate impacts to hydrology resources.<sup>39</sup> The evidence also shows there will be no impact to flood storage areas.<sup>40</sup> Applicant provided an estimate of the amount of water it will likely use during construction, and has committed to obtain any necessary permits for water sources used during construction and operations.<sup>41</sup>

25. The evidence demonstrates that the Project does not pose a threat of serious injury

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<sup>27</sup> Ex. A1 at 28-90 (Application); Ex. A3 at 3-14 (Sappington Direct Testimony); Ex. A18 at 3-5 (Sappington Supplemental Testimony); Ex. A24 at 3-5 (Sappington Rebuttal Testimony); Ex. S7 (Stipulated Conditions); Evid. Hrg. Tr. at 376-378 (Sappington) (February 5, 2020).

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

<sup>29</sup> Ex. A1 at 31-35 (Application) and Ex. A-A1, Figures 9a, 9b, and 10 (Maps).

<sup>30</sup> Ex. A1 at 33, 37 (Application).

<sup>31</sup> Ex. A1 at 34-35 (Application).

<sup>32</sup> Ex. A1 at 36-39 (Application) and Ex. A1-A, Figure 11 (Maps).

<sup>33</sup> Ex. A1 at 36-37 and 46-47 (Application).

<sup>34</sup> *Id.* at 46-47.

<sup>35</sup> *Id.* at 37, 88.

<sup>36</sup> *Id.* at 37.

<sup>37</sup> *Id.* at 38-44; Ex. A1-A, Figure 12.

<sup>38</sup> Ex. A1 at 38-44 (Application).

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

<sup>40</sup> *Id.* at 43.

<sup>41</sup> *Id.* at 39,40, 41, 44.

to terrestrial ecosystems.<sup>42</sup> Specifically, there are no anticipated impacts to federally or state-listed plants.<sup>43</sup> The Project will not involve any major tree-clearing.<sup>44</sup> Also, Crowned Ridge Wind II has designed the Project to minimize, or, if possible, avoid infrastructure being site in wetlands.<sup>45</sup> To minimize temporary impacts to vegetation due to construction, Applicant has also committed to implement BMP, a SWPPP, and SPCCP.<sup>46</sup> While the Project Area contains U.S. Fish and Wildlife Service (USFWS) wetland and wetland/grassland combination easements, the Project has been designed to avoid protected basins such that no surface impacts to protected basins are expected.<sup>47</sup> Applicant will avoid impacts to USFWS grasslands and grassland-wetland combination easements, as well as avoid impacts to native grassland to the extent practicable.<sup>48</sup> The BMPs will include re-vegetation practices and erosion control devices.<sup>49</sup> Applicant has also agreed to compensate landowners for crop damage.<sup>50</sup> Pursuant to Permit Condition No. 16, Applicant will develop and implement a plan to control noxious weeds.

26. The evidence demonstrates that the Project does not pose a threat of serious injury to wildlife.<sup>51</sup> Applicant has conducted extensive studies and consulted relevant studies to understand the potential impact to wildlife.<sup>52</sup> Applicant will implement an avoidance, minimization, and mitigation approach to lessen the impact the Project has on wildlife, including mammals and avian species.<sup>53</sup> Crowned Ridge Wind II also agreed to Staff's condition on the monitoring and mitigation of impacts to Whooping Cranes, which is included as Permit Condition No. 46.<sup>54</sup> There will be no turbines or other infrastructure sited on Waterfowl Production Areas, Game Production Areas, walk-in areas, grassland, wetland/grassland combination easements, or on Farmers Home Administration Easements.<sup>55</sup> Pursuant to Permit Condition No. 30, Applicant will file a Bird and Bat Conservation Strategy prior to the start of construction. Also, Staff witness Ms. Hilary Meyer Moyer testified that Applicant had appropriately coordinated with the SD GF&P on the impact of the Project on wildlife.<sup>56</sup>

27. The Commission finds, and the parties agree, that the effects of wind turbines on prairie grouse leks is still not sufficiently understood.<sup>57</sup> Therefore, to add to the scientific knowledge on the impact operating wind turbines may have on prairie grouse leks, if any, the Commission adopts Permit Condition No. 49.<sup>58</sup>

28. Applicant committed to file a Wildlife Conservation Strategy, which includes both direct and indirect effects as well as the wildlife mitigations measures set forth in the Application, prior to the start of construction.<sup>59</sup>

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<sup>42</sup> Ex. A1 at 44-70 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (2017-2018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report).

<sup>43</sup> Ex. A1 at 47 (Application).

<sup>44</sup> *Id.* at 50.

<sup>45</sup> *Id.*

<sup>46</sup> *Id.* at 87-89.

<sup>47</sup> *Id.* at 43.

<sup>48</sup> *Id.* at 14.

<sup>49</sup> *Id.*

<sup>50</sup> *Id.* at 47; Ex. A3 at 6 (Sappington Direct Testimony).

<sup>51</sup> Ex. A1 at 50-67 (Application).

<sup>52</sup> Ex. A1 at 50-67 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (20172018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report); Ex. A3 at 3-5 (Sappington Direct Testimony).

<sup>53</sup> Ex. A1 at 63-64, 66-67 (Application).

<sup>54</sup> Evid. Hrg. Tr. at 406 (February 5, 2020).

<sup>55</sup> Ex. A1 at 77 (Application).

<sup>56</sup> Evid. Hrg. Tr. at 540-541, 544 (Meyer Morey) (February 6, 2020).

<sup>57</sup> S3; Evid. Hrg. Tr. at 540-541, 544 (Meyer Morey) (February 6, 2020).

<sup>58</sup> Following the evidentiary hearing, Staff, Applicant, and SD GF&P agreed on February 25, 2020, to Permit Condition No. 49.

<sup>59</sup> Ex. A1 at 67; S1, page 103 of Exhibit\_DK-2.

29. The evidence demonstrates that the Project does not pose a threat of serious injury to aquatic ecosystems.<sup>60</sup> Similarly, the evidence demonstrates that the Project does not pose a threat of serious injury to land use and will comply with local controls.<sup>61</sup> Applicant has coordinated with landowners to locate infrastructure in a manner that minimizes the impact to their land uses.<sup>62</sup> The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations.<sup>63</sup> Applicant also committed to implement a number of BMPs to mitigate the impact of the Project on air and water quality.<sup>64</sup>

30. Applicant will install and use lighting required by the Federal Aviation Administration (FAA).<sup>65</sup> Applicant will equip the Project with a FAA-approved Aircraft Detection Lighting System (ADLS) to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.<sup>66</sup>

31. Applicant has undertaken extensive study, surveys, and consultation with applicable tribes to identify and avoid sites of cultural, archaeological, and historical importance.<sup>67</sup> For example, Applicant's Records Search per the South Dakota State Historic Preservation Office (SD SHPO) guidance identified 22 previously documented archaeological sites, 12 previously documented historic bridges, 54 previously documented standing historic structures, and 3 previously documented cemeteries that have been recorded inside and within 1 mile of the Project Area.<sup>68</sup> As a mitigation measure, Applicant will avoid direct physical impacts to National Register of Historic Places listed sites.<sup>69</sup>

32. Applicant also consulted with the Sisseton Wahpeton Oyate, Yankton Sioux, and Spirit Lake Nation tribes, who were selected by the affected tribes to represent all applicable tribes, to identify significant tribal resources, and Applicant included them as part of the survey field team.<sup>70</sup> Applicant further consulted with the SD SHPO on the type and content of surveys.<sup>71</sup> Applicant agrees to avoid direct impacts to cultural resources not previously identified and evaluated or notify the Commission and the SD SHPO if avoidance cannot be achieved so to coordinate minimization and/or treatment measures.<sup>72</sup> Applicant will also develop a plan to address any unanticipated discovery of cultural resources, consistent with SDCL 34-27-25, 34-27-26, and 34-27-28.<sup>73</sup> Applicant will file with the Commission any amendments to the Level III Archaeological survey for, among other facilities, access roads, crane paths, and collection lines prior to commercial operation.<sup>74</sup> Further, Applicant will implement specific avoidance, minimization, and mitigation measures for Traditional Cultural Properties.<sup>75</sup>

33. Based on the record in this proceeding and the Permit Conditions, Applicant has

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<sup>60</sup> Ex. A1 at 70 (Application).

<sup>61</sup> Ex. A1 at 71-86 (Application); Ex. A1-A (Figures); Ex. A5 at 7-13 (Wilhelm Direct Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).

<sup>62</sup> Ex. A5 at 13 (Wilhelm Direct Testimony).

<sup>63</sup> Ex. A1 at 86-90 (Application).

<sup>64</sup> *Id.* at 87-90.

<sup>65</sup> *Id.* at 14, 21, 85.

<sup>66</sup> *Id.* at 21, 85; Evid. Hrg. Tr. at 77 (Wilhelm) (February 4, 2020); Permit Conditions No. 34.

<sup>67</sup> Ex. A1 at 100-105 (Application); Ex. A3 at 14-16 (Sappington Direct Testimony); Evid. Hrg. Tr. at 377 (Sappington) (February 5, 2020); Evid. Hrg. Tr. at 535, 537-538 (Olson) (February 5, 2020).

<sup>68</sup> Ex. A1 at 101 (Application); Ex. A1-O (Cultural Confidential).

<sup>69</sup> Ex. A1 at 104 (Application).

<sup>70</sup> Ex. A1 at 103 (Application); Ex. A at 15-16 (Sappington Direct Testimony).

<sup>71</sup> Ex. A1 at 108-109 (Application); Ex. A3 at 16 (Sappington Direct Testimony); Ex. A1-B (Agency Coordination).

<sup>72</sup> Permit Conditions No. 11.

<sup>73</sup> Permit Conditions No. 12.

<sup>74</sup> Permit Conditions No. 13.

<sup>75</sup> Permit Conditions No. 38.

demonstrated that it will minimize or avoid impacts to cultural resources.

## 2. Social and Economic.

34. Applicant has been developing the Project for 10 years through an iterative process to identify the Project Area.<sup>76</sup> During this time, Applicant worked closely with federal and state agencies, landowners, and tribal and local governments to properly design and site the infrastructure for the Project.<sup>77</sup> Applicant has all land rights needed to construct and operate the Project.<sup>78</sup>

35. Applicant has demonstrated that the Project does not pose a threat of serious injury to the community.<sup>79</sup> The Project will only permanently impact approximately 76 acres of land, with approximately 57 acres of prime farmland.<sup>80</sup>

36. Applicant has committed to coordinate with first responders and provide them with Applicant's safety plan.<sup>81</sup>

37. Applicant has demonstrated that the construction and operation of the Project will result in benefits to South Dakota and local economies through payment of property taxes and lease payments.<sup>82</sup> There will be approximately 250 temporary workers used during the construction of the Project, and 7-12 permanent workers in South Dakota to conduct operation and maintenance activities, including 10 wind technicians, 1 lead wind technician, and 1 site manager.<sup>83</sup>

38. The record also demonstrates that the Project is not expected to adversely impact communication systems, such as microwave, AM, FM, cellular, TV, and aviation towers.<sup>84</sup> Also, pursuant to Permit Condition No. 24, Applicant has agreed to take action to minimize interference the Project causes to radio, television, and other licensed communication transmitting or receiving equipment.

39. The record demonstrates that Applicant will avoid and/or minimize impacts to transportation.<sup>85</sup> Applicant has committed to coordinate with the South Dakota Department of Transportation (SDDOT), Codington County, Deuel County, and Grant County, and Project Area townships to manage construction traffic, and to ensure that equipment and components are delivered safely to the Project. Applicant will also obtain SDDOT Highway Access and Utility Permits prior to construction, and contractors will be required to obtain applicable over height or overweight haul permits. County road permits required for right-of-way occupancy, utility crossings, road approaches, and overweight loads will be obtained by the Applicant from Codington County, Deuel County, and Grant County prior to beginning construction activities for which the permit is required.<sup>86</sup> Permit Conditions Nos. 7 and 8 also require Crowned Ridge Wind

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<sup>76</sup> Ex. A1 at 2, 26-28 (Application).

<sup>77</sup> Ex. A1 at 2, 26-28, 86; Ex. A5 at 4-12 (Wilhelm Direct Testimony).

<sup>78</sup> Ex. A17 at 7 (Wilhelm Supplemental Testimony); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).

<sup>79</sup> Ex. A1 at 90-100, 105-108 (Application); Ex. A1-L (Property Value Effects Studies); Ex. A1-M (Telecommunication Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis) Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).

<sup>80</sup> Ex. A1 at 37 (Application).

<sup>81</sup> Ex. A1 at 98 (Application).

<sup>82</sup> Ex. A1 at 17, 93 (Application); Ex. A5 at 12-13 (Wilhelm Direct Testimony); and Ex. A6 at 3 (Hart Direct Testimony); Ex A6-2 (Allocation of Tax Revenues).

<sup>83</sup> Ex. A1 at 106 (Application); Ex. A4 at 8-9 (Thompson Direct Testimony).

<sup>84</sup> Ex. A1 at 99-100 (Application) and A1-M (Telecommunication Study).

<sup>85</sup> Ex. A1 at 98-99 (Application).

<sup>86</sup> *Id.* at 24.

II to obtain applicable road use agreements and implement specific road protection practices. Permit Condition No. 9 requires Crowned Ridge Wind II to develop a Temporary Traffic Control Plan in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

40. The record demonstrates that the Project will not adversely impact property values.<sup>87</sup> Applicant's witness, Mr. Michael MaRous, a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser with extensive experience evaluating the impact of wind turbines on property values, conducted a Market Analysis to analyze the potential impact of the Project on the value of the surrounding properties and found no market data indicating property values will be adversely impacted due to proximity to the Project.<sup>88</sup> This conclusion is also consistent with the Commission's recent findings regarding property values in the Prevailing Wind Park, Dakota Range I and II, Crocker, Deuel Harvest, and Crowned Ridge I wind farm proceedings.<sup>89</sup>

41. Staff witness, Mr. David Lawrence, also a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser conducted his own analysis. Mr. Lawrence analyzed 16 sale transactions of rural residences in proximity to a wind turbine.<sup>90</sup> Mr. Lawrence testified that he found one property sale that was negatively impacted by the planned wind farm.<sup>91</sup> The discovery of this one negatively impacted property sale did not change his overall opinion that the selling prices of rural residences are not been influenced by the presence of a wind tower or project.<sup>92</sup>

42. At the hearing, Mr. Lawrence testified that the sales data did not support the comments about negative impacts on property value but rather it showed that these properties do sell within the range of the market.<sup>93</sup> One property within proximity to a wind farm even sold at a six percent appreciation rate.<sup>94</sup>

43. The FAA has issued a Determination of No Hazard for all but one of the Project's proposed turbine sites.<sup>95</sup> For that one turbine (CR2 Alt. 8), Applicant has decided to hold off on filing for the Determination of No Hazard with the FAA until it becomes clearer with the development of future projects to avoid potential radar saturation in that area.<sup>96</sup>

44. In prior contested siting dockets, the Commission has considered the following socioeconomic issues in evaluating whether a project would pose a threat of serious injury to the social and economic condition: temporary and permanent jobs; tax revenue; and impacts on

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<sup>87</sup> Ex. A1 at 95 (Application) and Ex. A1-L (Property Value Effects Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis); Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).

<sup>88</sup> A16 (MaRous Supplemental); A22 (MaRous Rebuttal).

<sup>89</sup> See *In the Matter of the Application by Prevailing Wind Park, LLC for a Permit of a Wind Energy Facility in Bon Homme County, Charles Mix County and Hutchinson County, South Dakota, for the Prevailing Wind Park Project*, Docket EL18-026, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (Nov. 28, 2018); *In the Matter of the Application by Dakota Range I, LLC and Dakota Range II, LLC for a Permit of a Wind Energy Facility in Grant County and Codington County, South Dakota, for the Dakota Range Wind Project*, Docket EL18-003, Final Decision and Order Granting Permit to Construct Wind Energy Facility; Notice of Entry (July 23, 2018); *In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm*, Docket EL17-055, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (June 12, 2018); *In the Matter of the Application of Deuel Harvest Wind Energy, LLC*, Docket No. EL18-053, Final Decision and Order (May 30, 2019); *In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties*, Docket No. EL19-003, Final Decision and Order (July 26, 2019); see also Ex. S8 (Surrebuttal Testimony of David Lawrence in Docket EL18-003).

<sup>90</sup> Ex. S5 (Lawrence Direct); S6 (Lawrence Supplemental).

<sup>91</sup> *Id.*

<sup>92</sup> Ex. S6 at 2-3.

<sup>93</sup> Evid. Hrg. Tr. at 474 (Lawrence) (February 5, 2020).

<sup>94</sup> Evid. Hrg. Tr. at 473 (Lawrence) (February 5, 2020).

<sup>95</sup> Evid. Hrg. Tr. at 75-77 (Wilhelm) (February 4, 2020).

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

commercial, agricultural, and industrial sectors, housing, land values, labor market, health facilities, energy, sewage and water, solid waste management facilities, fire protection, law enforcement, recreational facilities, schools, transportation facilities, and other community and government facilities.<sup>97</sup>

45. The record demonstrates that the Project will not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants in the siting area.

**C. The facility will not substantially impair the health, safety or welfare of the inhabitants.**

46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any non-participants' residence and (2) no more than 50 dBA at any participants' residence.<sup>98</sup> These sound levels were modeled using the following conservative assumptions: (1) the wind turbines were assumed to be operating at maximum sound emission levels; (2) a 2 dBA adder was applied to the wind turbines sound emission levels; (3) the receptors were assumed to be downwind of the wind turbines; and (4) the atmospheric conditions were assumed to be the most favorable for sound to be transmitted.<sup>99</sup> The Project will also not result in sound above 50 dBA at any non-participants property boundaries for those residences in Codington County.<sup>100</sup> Applicant modelled sound levels with consideration of the cumulative sound impacts from Deuel Harvest and Crowned Ridge Wind I wind projects.<sup>101</sup> Further, Applicant agreed to Permit Condition No. 27 in order to further reduce certain non-participant sound levels, consistent with the proposal advocated by Staff witness Mr. David Hessler.<sup>102</sup> Pursuant to Permit Condition No. 26, Applicant agreed to a post construction sound protocol to be used in the event the Commission orders post construction sound monitoring.

47. Similarly, the record also demonstrates that Applicant has appropriately minimized the shadow and flicker for the Project to no more than 30 hours for all participants and non-participants inclusive of cumulative impacts from Deuel Harvest and Crowned Ridge Wind I, with the understanding that wind turbine CR11-Alt-3 will need to be curtailed to ensure the shadow and flicker is no more than 30 hours at receptor CR1-C10-P.<sup>103</sup> Applicant also used conservative

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<sup>97</sup> See, e.g., *In the Matter of the Application of Dakota Access, LLC for an Energy Facility Permit to Construct the Dakota Access Pipeline*, Docket HP14-002, Final Decision and Order; Notice of Entry (Dec. 14, 2015); *In the Matter of the Application by TransCanada Keystone Pipeline, LP for a Permit Under the South Dakota Energy Conversion and Transmission Facilities Act to Construct the Keystone XL Project*, Docket HP09-001, Amended Final Decision and Order; Notice of Entry (June 29, 2010) (discussing socioeconomic effects, including tax revenue, jobs, and impacts on agricultural, commercial, and industrial sectors and public facilities); *In the Matter of the Application of Dakota Range I, LLC and Dakota Range II, LLC for a Permit of a Wind Energy Facility in Grant County and Codington County, South Dakota, for the Dakota Range Wind Project*, Final Decision and Order Granting Permit to Construct Wind Energy Facility; Notice of Entry (July 23, 2018); *In the Matter of the Application of Montana-Dakota Utilities Co. and Otter Tail Power Company for a Permit to Construct the Big Stone South to Ellendale 345 kV Transmission Line*, Docket EL13-028, Final Decision and Order; Notice of Entry (Aug. 22, 2014) (discussing impacts to agriculture, property values, and local roads under this criterion). See *In the Matter of the Application by Prevailing Wind Park, LLC for a Permit of a Wind Energy Facility in Bon Homme County, Charles Mix County and Hutchinson County, South Dakota, for the Prevailing Wind Park Project*, Docket EL18-026, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (Nov. 28, 2018); *In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm*, Docket EL17-055, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (June 12, 2018); *In the Matter of the Application of Deuel Harvest Wind Energy, LLC*, Docket No. EL18-053, Final Decision and Order (May 30, 2019); *In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties*, Docket No. EL19-003, Final Decision and Order (July 26, 2019).

<sup>98</sup> Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-I (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

<sup>99</sup> Ex. A1-I at 1 (Sound Modelling Results); Evid. Hrg. Tr. at 217-218 (Haley) (February 4, 2020).

<sup>100</sup> *Id.* at 2.

<sup>101</sup> Ex. A1-I at 8-9 (Sound Modelling Results).

<sup>102</sup> Ex. S2 (Hessler Direct Testimony).

<sup>103</sup> Ex. A13 at 5 (Hart Supplemental Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-J (Shadow Flicker Modeling Report); Ex. A14-2 and Ex. A14-4 (Supplemental Testimony Shadow Flicker Studies); Ex. A21-2; Ex. A21-3; Ex. A28 (Updated Rebuttal Shadow Flicker Results); Evid. Hrg. Tr. at 220 (Haley) (February 4, 2020).

assumptions, such as the greenhouse-mode, no credit for blockage due to tree and assumed the wind turbines were operating 100% of the time to model shadow and flicker, which, in turn, produces conservative results.<sup>104</sup>

48. There is no record evidence that the Project will substantially impair human health or welfare. To the contrary, Crowned Ridge Wind II witnesses Dr. Robert McCunney and Dr. Christopher Ollson submitted evidence that demonstrates that there is no human health or welfare concern associated with the Project as designed and proposed by Applicant.<sup>105</sup> Both Crowned Ridge Wind II witnesses analyzed the scientific peer-reviewed literature in the context of the proposed Project, and Dr. McCunney testified based on his experience and training as a medical doctor specializing in occupational health and the impact of sound on humans.<sup>106</sup>

49. There is no evidence in the record that the Project will substantially impair safety. Applicant will meet or exceed required setbacks established for safety,<sup>107</sup> and, also, implement safety practices during construction, operation, and maintenance, including grounding wind turbines in accordance with National Electrical Safety Code standards.<sup>108</sup> The Project will be monitored twenty-four hours a day, seven days a week through the Supervisory Control and Data Acquisition system.<sup>109</sup>

50. Applicant will implement a SWPPP and SPCCP, part of which will ensure that state and local disaster services are coordinated with in the event of the accidental release of contaminants.<sup>110</sup>

51. Applicant will illuminate the wind turbines as required by the FAA,<sup>111</sup> with the understanding that Applicant has also agreed under Permit Condition No. 34 to equip the Project with an ADLS.

52. Permit Condition No. 36 requires Applicant to use two methods to detect icing conditions on turbine blades in order to shut down turbines when they are accumulating ice.

53. Permit Condition No. 9 requires that Applicant develop and file a Temporary Traffic Control Plan.

54. Permit Condition No. 4 requires Applicant to mail to participating and non-participating landowners detailed safety information, including safety precautions, 14 days prior to the commencement of construction.

55. Mr. MaRous testified that it is commonplace in areas where wind turbines are placed that the project owner will shut down select wind turbines so that aerial spray pilots may spray fields.<sup>112</sup> Permit Condition No. 48 requires the Project owner to cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.

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<sup>104</sup> Ex. A2 at 7 (Haley Direct Testimony); Ex. A1-J at 1, 6; Evid. Hrg. Tr. at 218-220 (Haley) (February 4, 2020).

<sup>105</sup> Ex. A10, and Ex. A10-2 through A10-16 (Ollson Supplemental Testimony and Exhibits); Ex. A15, and Ex. A15-2 through A15-8 (McCunney Supplemental Testimony); Ex. A20 (Ollson Rebuttal Testimony); Evid. Hrg. Tr. at 322-323, 329-330 (McCunney) (February 5, 2020); Evid. Hrg. Tr. at 335-337, 368-369 (Ollson) (February 5, 2020).

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

<sup>107</sup> Ex. A1 at 73-76 (Application) and Ex. A5 at 8-10 (Wilhelm Direct Testimony).

<sup>108</sup> Ex. A1 at 21, 108 (Application) and Ex. A4 at 3, 5, 7 (Thompson Direct Testimony).

<sup>109</sup> Ex. A1 at 24-25 (Application) and Ex. A4 at 5, 8 (Thompson Direct Testimony).

<sup>110</sup> Ex. A1 at 13, 14, 25, 37, 39, 43, 88, 95, 98 (Application).

<sup>111</sup> *Id.* at 14.

<sup>112</sup> Evid. Hrg. Tr. at 137, 145, 153 (MaRous) (February 4, 2020).

56. Therefore, the record shows that Crowned Ridge Wind II has met its burden to demonstrate that the Project will not substantially impair the health, safety or welfare of the inhabitants of the siting area; indeed, there is no evidence in the record that the Project would substantially impair human health.

**D. The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.**

57. The Commission must give due consideration to the views of governing bodies of affected local units of government pursuant to SDCL 49-41B-22(4). An Applicant that holds a conditional use permit from an applicable local unit of government is in compliance with this subsection.

58. The record demonstrates that the Project will not unduly interfere with the orderly development of the region. Applicant holds CUPs from Grant County and Codrington County, and an SEP from Deuel County.<sup>113</sup> Given that Applicant holds these permits from the applicable local units of government, Applicant has demonstrated, consistent with SDCL 49-41B-22(4), that the Project will not unduly interfere with the orderly development of the region.

59. Applicant has also committed to decommissioning the Project at the end of its 25-year useful life, provided the life of the Project is not extended by retrofitting the turbines and power systems.<sup>114</sup>

60. Applicant has also committed to fund a Decommissioning Funding Account consistent with Permit Condition No. 33.

**VI. GENERAL.**

61. Applicants have furnished all information required by the applicable statutes and Commission regulations.

62. Applicants have satisfied their burden of proving all of the requirements imposed by SDCL 49-41B-22 for issuance of the permit to construct by the preponderance of the evidence.

63. An application may be denied, returned, or amended, at the discretion of the Commission, for failure to file an application generally in the form and content required by SDCL Chapter 49-41B and ARSD Chapter 20:10:22.<sup>115</sup> The Commission finds that Applicant filed its Application generally in the form and content required by SDCL Chapter 49-41B and ARSD Chapter 20:10:22. The Commission notes that the supplementation of an application with additional information is common.<sup>116</sup>

64. An application may be denied, returned, or amended, at the discretion of the Commission, if there are any deliberate misstatements of material facts in the application or in accompanying statements or studies.<sup>117</sup> The Commission finds that the Application and its accompanying statements and studies did not contain any deliberate misstatements of material facts.

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<sup>113</sup> Ex. A5 at 7-10 (Wilhelm Direct Testimony); Ex. A1-K (County Use Permits).

<sup>114</sup> Ex. A1 at 107 (Application); Ex. A1-L (Decommission Plan).

<sup>115</sup> SDCL 49-41B-13(2).

<sup>116</sup> Ex. S1 at 8-9 (Kearney Direct Testimony).

<sup>117</sup> SDCL 49-41B-13(1).



65. The Commission finds that the Permit Conditions attached hereto and incorporated herein by reference are supported by the record, are reasonable, and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and should be adopted.

66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

67. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not pose an unacceptable threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

68. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not substantially impair the health, safety or welfare of the inhabitants in the siting area.

69. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not unduly interfere with the orderly development of the region with due consideration having been given to the views of the governing bodies of the affected local units of government.

70. The Commission finds that neither the Intervenor nor the pro se Intervenor have presented evidence sufficient to deny the permit under the applicable statutes and Commission regulations.

71. The Commission finds that a permit to construct the Project should be granted subject to the attached Permit Conditions.

72. To the extent that any Conclusion of Law set forth below is more appropriately a finding of fact, that Conclusion of Law is incorporated herein by reference as a Finding of Fact as if set forth in full herein.

73. To the extent that any of the Findings of Fact in this decision are determined to be Conclusions of Law or mixed findings of fact and conclusions of law, the same are incorporated herein by this reference as a Conclusion of Law as if set forth in full herein.

Based on the foregoing Findings of Fact and the entire record in this proceeding, the Commission hereby makes the following:

### **CONCLUSIONS OF LAW**

1. The Commission has jurisdiction to consider the Application under SDCL Chapter 49-41B.

2. The Crowned Ridge Wind II Project proposed by Applicant is a wind energy facility as defined under SDCL 49-41B-2(13).

3. The Application submitted by Applicant, as amended and supplemented throughout the proceedings in this matter, meets the criteria required by SDCL 49-41B-25, and construction of the Project meets the requirements of SDCL 49-41B and ARSD Chapter 20:10:22.

4. The Commission concludes that it possesses the authority under SDCL 49-41B-25 to impose conditions on the construction, operation, and maintenance of the Project, that the Conditions set forth in the attached Permit Conditions are supported by the record, are reasonable, and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project as set forth in SDCL 49-41B-22 and that the Permit Conditions are hereby adopted.

5. The Commission concludes that it needs no other information to assess the impact of the proposed facility or to determine if Crowned Ridge Wind II has met its burden of proof.

6. The Commission satisfied the hearing and notice requirement in SDCL Chapter 49-41B.

7. Applicant satisfied the applicable notice requirements in SDCL Chapter 49-41B.

8. All other applicable procedural requirements in SDCL Chapter 49-41B have been satisfied.

9. Applicant has demonstrated that the proposed facility will comply with all applicable laws and rules.

10. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.

11. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not substantially impair the health, safety or welfare of the inhabitants.

12. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not unduly interfere with the orderly development of the region with due consideration having been given to the views of the governing bodies of the affected local units of government.

13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.

14. The standard of proof is by the preponderance of evidence. Applicant has met its burden of proof imposed by SDCL 49-41B-22 for the issuance of the permit to construct by the preponderance of the evidence and is entitled to a permit to construct as provided in SDCL 49-41B-25.

15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all of the requirements of SDCL 49-41B-22 have been satisfied.

16. The Commission thus concludes that the Application should be granted, and a facility permit should be issued for the Project for the reasons stated in these Findings of Fact and Conclusions of Law. The Commission grants the permit to construct requested in the Application, as amended, subject to the Permit Conditions.

## ORDER

From the foregoing Findings of Fact and Conclusions of Law, it is therefore:

ORDERED, that a permit to construct the Crowned Ridge Wind II Project is hereby granted to Crowned Ridge Wind II, LLC for the construction and operation of the Project. It is further

ORDERED, that Applicant shall comply with all of the attached Permit Conditions, which are incorporated by reference into this Order the same as if they had been set forth in their entirety herein, unless exempted by the Commission pursuant to Condition No. 40.

### **PERMIT CONDITIONS**

1. Applicant will obtain all governmental permits which reasonably may be required by any township, county, state agency, or federal agency, or any other governmental unit for construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. Applicant shall file an itemized affidavit with the Commission attesting that all permits were properly obtained prior to commercial operation.
2. Applicant shall construct, operate, and maintain the Project in a manner consistent with (1) descriptions in the Application, (2) Application supplements and corrections, (3) commitments made by Applicant in the Application and responses to data requests, (4) the Final Decision and Order Granting Permit to Construct Facility (Order or Permit) and Permit Conditions, (5) all applicable permits issued by a federal, state, or local agency with jurisdiction over the Project, and (6) evidence presented by Applicant at the evidentiary hearing.
3. Applicant agrees that the Commission's complaint process as set forth in ARSD Chapter 20:10:01 shall be available to landowners and other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit. Participating landowners may use the complaint process free from retribution or consequence regardless of any private easement term to the contrary.
4. At least 14 days prior to commencement of construction, Applicant shall provide each participating and non-participating landowner in the Project Area, using the addresses designated to receive the property tax bill sent by the county treasurer, with the following information:
  - a) A copy of the Order and Permit Conditions;
  - b) Detailed safety information describing:
    - i. Reasonable safety precautions for existing activities on or near the Project;
    - ii. Known activities or uses that are presently prohibited near the Project; and,
    - iii. Other known potential dangers or limitations near the Project;

- c) Construction/maintenance damage compensation plans and procedures (only to participating landowners);
  - d) The Commission's address, website, and phone number; and
  - e) Contact person for Applicant, including name, e-mail address, and phone number.
5. In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of Applicant involved in this Project shall be made aware of the terms and conditions of this Permit prior to the start of construction.
6. Except as otherwise provided in the Permit Conditions, Applicant shall comply with all mitigation measures set forth in the Application, Applicant's commitments in its responses to data requests, and Applicant exhibits and testimony at the evidentiary hearing. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.
7. Applicant will negotiate road use agreements with Deuel, Codington, and Grant Counties and all affected townships, if required. Applicant will comply with such road use agreements. When using haul roads specified in applicable road use agreements, Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal of any soils or mud deposits by construction equipment when necessary.
8. In accordance with applicable road use agreements or applicable law, Applicant shall comply with the following conditions regarding road protection:
- a) Applicant shall acquire all necessary permits authorizing the crossing of federal, state, county, and township roads.
  - b) Applicant shall coordinate road closures with federal, state, and local governments, and emergency responders.
  - c) Applicant shall implement a regular program of road maintenance and repair through the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.
  - d) After construction, Applicant shall repair and restore deteriorated roads resulting from construction traffic or compensate governmental entities for their repair and restoration of deteriorated roads, such that the roads are returned to their preconstruction condition.
  - e) Within 180 days of completing construction and reclamation of the Project, Applicant shall submit documentation to the Commission identifying that the roads were repaired in accordance with Condition 8 and to the satisfaction of affected townships and counties. If a township or county will not provide such documentation, then Applicant shall provide a report to the Commission on the outstanding road repair issues and how those issues have been or will be

resolved.

- f) Privately owned areas used as temporary roads or crane paths during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.
  - g) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to the original width after completion of the Project, unless otherwise agreed upon with the federal, state, county, or township entities, or the landowner.
9. Applicant shall develop a Temporary Traffic Control Plan and provide signage, vehicle lighting, and/or flagging that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration. The Temporary Traffic Control Plan shall be filed with the Commission prior to the start of construction.
  10. Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species in the Project Area that Applicant becomes aware of and that was not previously reported to the Commission.
  11. Applicant agrees to avoid direct impacts to cultural resources that are unevaluated, eligible for, or listed in the National Register of Historic Places (NRHP). When a NRHP unevaluated, eligible, or listed resource cannot be avoided, Applicant shall notify the South Dakota State Historic Preservation Office (SHPO) and the Commission prior to excavation of the area of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or treatment measures.
  12. Prior to the commencement of construction, Applicant agrees to develop an unanticipated discovery plan for cultural resources and comply with SDCL 34-27-25, 34-27-26, and 34-27-28 for the discovery of human remains.
  13. Applicant shall file any amendments to the Level III Archaeological Survey with the Commission and provide a copy of the survey to the SHPO prior to commercial operation. The survey report may contain confidential information and all confidential portions of the survey report shall be filed as confidential and not for public disclosure. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in additional surveys, Applicant shall file with the Commission a report describing the SHPO-approved planned measures to ameliorate those impacts.
  14. Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission when Applicant has a final design for the Project. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation and be in a form consistent with the South Dakota Department of Environment and Natural Resources guidelines for such plans. The SWPPP will be completed before submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. All contractors to be engaged in ground disturbing activities shall be given a copy of the SWPPP and the requirements shall be reviewed with them by Applicant prior to the start of construction.

15. Applicant shall repair and restore areas disturbed by the construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration shall include the replacement of the original pre-construction topsoil or equivalent quality topsoil to its original elevation, contour, and compaction and re-establishment of original vegetation as close thereto as reasonably practical. In order to facilitate compliance with this Permit Condition, Applicant shall:
  - a) Strip the topsoil to the actual depth of the topsoil, or as otherwise agreed to by the landowner in writing (e-mail is sufficient), in all areas disturbed by the Project; however, with respect to access roads, Applicant may remove less than the actual depth of the topsoil to ensure roads remain low-profile and the contours align with the surrounding area;
  - b) Store the topsoil separate from the subsoil in order to prevent mixing of the soil types;
  - c) Ensure all excess soils generated during the excavation of the wind turbine foundations shall remain on the same landowner's land, unless the landowner requests, and the landowner agrees otherwise; and
  - d) When revegetating non-cultivated grasslands, Applicant shall use a seed mix that is recommended by the Natural Resource Conservation Service (NRCS), or other land management agency, unless otherwise agreed upon with the landowner in writing.
16. Applicant shall work closely with landowners or land management agencies, such as the NRCS, to determine a plan to control noxious weeds and Applicant shall implement the plan.
17. Applicant shall stage construction materials in a manner that minimizes the adverse impact to landowners and land users as agreed upon between Applicant and landowner or Applicant and the appropriate federal, state, and/or local government agency. All excess (non-permanent) construction materials and debris shall be removed upon completion of the Project, unless the landowner agrees otherwise.
18. In order to mitigate interference with agricultural operations during and after construction, Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities. Applicant shall take appropriate precautions to protect livestock and crops during construction. Applicant shall repair all fences and gates removed or damaged during construction or maintenance unless otherwise agreed upon with the landowner or designee. Applicant shall be responsible for the repair of private roads damaged when moving equipment or when obtaining access to the right-of-way.
19. Applicant shall bury the underground collector system at a minimum depth of 48 inches, or deeper if necessary, to ensure the current land use is not impacted.
20. Applicant shall repair or replace all property removed or damaged during all phases of construction, including but not limited to, all fences, gates, and utility, water supply, irrigation, or drainage systems. Applicant shall compensate the owners for damages or losses that cannot be fully remedied by repair or replacement, such as lost productivity

and crop and livestock losses. All repair, replacement and/or compensation described above shall be in accordance with the terms and conditions of written agreements between Applicant and affected landowners where such agreements exist.

21. Applicant shall, in the manner described in its written agreement with a landowner, indemnify and hold the landowner harmless for loss, damage, claim, or actions resulting from Applicant's use of the easement, including any damage resulting from any release, except to the extent such loss, damage claim, or action results from the negligence or willful misconduct of the landowner or his employees, agents, contractors, invitees, or other representatives.
22. Applicant may make wind turbine location adjustments of 250 feet or less from the wind turbine locations identified at the time the Permit is issued without prior Commission approval, so long as the specified noise and shadow flicker thresholds are not exceeded, cultural resource impacts and documented habitats for listed species are avoided, and wetland impacts are avoided or are in compliance with applicable U.S. Army Corps of Engineers (USACE) regulations. Prior to implementing the wind turbine location adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any wind turbine location adjustment that does not comply with the aforesaid limitations, or wind turbine model change, shall be considered a "material change," and Applicant shall file a request for approval of the "material change" prior to making the adjustment pursuant to the following approval process:

Applicant will file with the Commission and serve on the official Service List a request for approval of the material change that includes:

- An affidavit describing the proposed wind turbine location adjustment, the reason for the location adjustment, the reason the location adjustment does not comply with one or more wind turbine flexibility limitations set forth above, and information regarding compliance with all other applicable requirements.
  - A map showing both the approved location and the proposed location adjustment (in different colors).
  - Once received, Staff shall have 10 business days within which to request further Commission review of the request.
  - If no further review is requested, Applicant may proceed with the location adjustment.
  - If further review is requested, the Commission will issue a decision on Applicant's request at its next available regularly scheduled Commission meeting, subject to notice requirements, after the request for further review is made by Staff.
23. Applicant may adjust locations and details of access roads, the collector and communications systems, meteorological tower(s), Aircraft Detection Lighting System facilities, the operations and maintenance facility, the Project Substation, and temporary facilities, so long as they are located on land leased for the Project, cultural resources are avoided or mitigated in consultation with the SHPO, documented habitats for listed species are avoided, wetland impacts are avoided or are in compliance with applicable USACE regulations, and all other applicable regulations and requirements are met.
  24. If the Project causes interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or

provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

25. Applicant will provide Global Positioning System coordinates of structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.
26. The Crowned Ridge Wind II Project (CRW II), exclusive of all unrelated background noise except for that associated with the pre-existing Crowned Ridge Wind I Project (CRW I), shall not generate a sound pressure level (10-minute equivalent continuous sound level, Leq) of more than 45 dBA as measured within 25 feet of any non-participating residence unless the owner of the residence has signed a waiver, or more than 50 dBA (10-minute equivalent continuous sound level, Leq) within 25 feet of any participating residence unless the owner of the residence has signed a waiver. The Project owner shall, upon Commission formal request, conduct field surveys and provide monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds a limit set forth above, then the Project owner shall act in accordance with prudent operating practice to rectify the situation.

If a field survey and monitoring data is requested by the Commission, the Project owner shall submit the test protocol to the Commission prior to conducting the survey and sound monitoring for approval. The test protocol shall include and be implemented as follows:

- a) The post-construction monitoring survey shall be conducted following applicable American National Standard Institute (ANSI) methods.
- b) Sound levels shall be measured continuously for 14 days in an effort to capture a sufficient quantity of valid readings meeting the wind conditions delineated below in subpart (e). A sufficient quantity shall be defined as 0.5% of the total number of samples, or a minimum of 10 for a 14-day measurement period. As a precaution against the possibility that a sufficient number of valid readings are not automatically recorded during the chosen 14-day sampling period, 10 on/off tests shall be carried out during the survey period when both the CRW II and CRW I Projects are operating at full power production irrespective of the ground level wind speed. For the on/off tests, all units owned by CRW II and CRW I, within at least 1 mile of the measurement position, shall be shut down for a 10-minute period synchronized with the monitor's clocks (starting, for example, at the top of the hour or 10 minutes after, 20 minutes after, etc.) with the understanding that Applicant may request Staff to facilitate the curtailment of any CRW I wind turbines, and Staff shall facilitate the coordination between CRW II and CRW I on any curtailment. The background level measured during the shutdown interval can then be subtracted from the average of the levels measured immediately before and after it to determine the Project-only sound level. The results from these tests may be used to make up for any shortfall in collecting 10 samples measured when the ground level wind speed is less than or equal to 5 m/s.
- c) Measurements shall be conducted at a select number of non-participating and participating residences with the highest expected noise levels and/or at specific residences identified in the Commission's formal request. At least 6



measurement locations total shall be selected. The Public Liaison Officer will assist in contacting non-participating landowners for permission to test noise levels on their property.

- d) Measurements shall be conducted using sound level meters meeting ANSI Type 1 specifications. An anemometer shall be placed within 20 feet of each microphone, and at a height of approximately 2 meters above the ground.
  - e) The measurement data shall be analyzed as follows:
    - i. At a minimum, the closest 5 wind turbines associated with the CRW II and CRW I Projects will be operating for evaluation periods and when at least the closest wind turbine is operating at a condition at full (within one decibel of maximum sound power levels) acoustic emissions.
    - ii. Discard those samples measured when the 10-minute average ground wind speed is greater than 5 m/s.
    - iii. Discard those samples measured during periods with precipitation.
    - iv. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing transient background noise (i.e. occasional traffic, activities of residents, farming activities, and wind gusts) based upon audio recordings, excessive wind gusts, personal observations, and/or comparison of sound level metrics.
    - v. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing continuous background noise. This approach requires wind turbine shut-downs, where the background noise is measured directly. The background sound level shall be measured with all wind turbines within at least 1 mile of the measurement location temporarily shut down. This would include wind turbines that are part of the CRW I Project for measurement positions in the northern part of the CRW II Project, with the understanding that Applicant may request Staff to facilitate the curtailment of any CRW I wind turbines, and Staff shall facilitate the coordination between CRW II and CRW I on any curtailment. Background noise levels will be subtracted from total noise levels measured during these wind conditions to calculate wind turbine-only noise levels.
    - vi. As necessary, review of the frequency spectra of potential wind turbine-only samples to identify and remove outliers (spectral shape clearly differing from those samples measured under very low (less than 2 m/s) ground wind conditions, which are the samples most representative of wind turbine-only noise).
  - f) Compare the resulting wind turbine-only noise levels to the 45 and 50 dBA limits. Compliance shall be demonstrated if all samples are less than the limits.
27. Applicant agrees to use wind turbine locations CRII-94, CRII-97, CRII-134, and CRII-Alt 6 as primary wind turbines and relegate wind turbine locations CRII-13, CRII-72, CRII-77, and CRII-Alt 5 to alternative status. If during construction at an alternative wind turbine, Applicant determines that the location is not suitable for a wind turbine due to

geotechnical, cultural, environmental issues or other constructability issues, Applicant shall file an affidavit with the Commission setting forth why the alternative wind turbine cannot be used and identifying which primary wind turbine will be used. If there is a dispute over the use of a primary wind turbine, Applicant and Staff shall meet and attempt to resolve the dispute within 10 business days of the filing of the affidavit. If the dispute cannot be resolved within 10 business days, Applicant shall file a request for a material change with the Commission.

28. Applicant shall seek input from local emergency response personnel to properly and effectively coordinate an emergency response plan consistent with local resources and response abilities. Upon completion of construction, a Project operation emergency response plan shall be provided to Staff to make available to the general public on the Commission's website.
29. Applicant agrees to undertake one year of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Services, South Dakota Game, Fish & Parks (SD GF&P), and the Commission. Applicant also agrees to fund a federal grant match for the SD GF&P State Wildlife Action Plan designed to facilitate an additional component for the grouse study on avian predator interactions with wind projects. This particular study component must be consistent with SD GF&P State Wildlife Action Plan priorities and must be designed to inform the scientific literature regarding potential mechanisms that may explain grouse and wind project interactions.
30. Applicant shall file a Bird and Bat Conservation Strategy (BBCS) prior to beginning construction of the Project. The BBCS shall be implemented during construction and operation of the Project.
31. At least 60 days prior to construction on property enrolled as a SD GF&P walk-in area, Applicant shall contact the SD GF&P to coordinate public access to the walk-in area that will be temporarily disrupted due to construction activities.
32. If the Project is decommissioned, Applicant shall comply with Section 21 of the Application and the decommissioning plan set forth in Appendix N of the Application. The Commission shall be notified prior to the commencement of any decommissioning activities at the Project.
33. If Applicant is purchased by Northern States Power Company, doing business as Xcel Energy, as stated in Sections 1.0 and 3.0 of the Application, Xcel Energy will assume financial responsibility for decommissioning and provide funding for the decommissioning and removal of the Project. As a regulated electric utility, the projected financial cost of decommissioning will be reviewed when Xcel Energy requests recovery of the Project investment and associated decommissioning cost from customers in a rate proceeding. The Commission may review and adjust the Project decommissioning cost recovered from customers in subsequent Xcel Energy rate proceedings using the most current information available regarding decommissioning.

In the event Xcel Energy does not purchase CRW II, at least 30 days prior to commencement of commercial operation, Project owner shall file an escrow agreement with the Commission for Commission approval that provides a decommissioning escrow account (Decommissioning Funding Account). The escrow agreement shall incorporate the following requirements:

- a) The Decommissioning Funding Account shall be funded by Project owner annually at a rate of \$5,000 per wind turbine per year for the first 30 years, commencing no later than the commercial operation date.
- b) Beginning in year 10 following commercial operation of the Project and each fifth year thereafter, the Project owner shall submit to the Commission an estimated decommissioning date, if established, and estimated decommissioning costs and salvage values. Based on the verification of the information in the filing, Project owner may request, and the Commission may determine that funds in the Decommissioning Funding Account are sufficient to cover the costs of decommissioning and that reduced, or no additional deposits are required. The Commission also may determine that additional funding is required and may require additional funding equal to the estimated amount needed for decommissioning.
- c) All revenues earned by the Decommissioning Funding Account shall remain in the Decommissioning Account until such funds are used for decommissioning of the facility or are returned pursuant to Permit Condition 33(i) or Condition 33(j).
- d) A statement of the Decommissioning Funding Account shall be provided annually to the Commission and become a public record in this docket.
- e) The Decommissioning Funding Account obligations will be those of CRW II and the escrow agreement shall include terms providing that the escrow agreement binds CRW II's successors, transferees, and assigns. A sale of Project assets shall include the associated Permit that requires Commission approval per SDCL §49-41B-29.
- f) The Decommissioning Funding Account agent shall be a South Dakota chartered state bank or a nationally chartered bank with an office located in South Dakota.
- g) The escrow agreement shall be subject to the laws of South Dakota and any disputes regarding the escrow agreement shall be subject to venue in South Dakota.
- h) To minimize the risk that the Decommissioning Funding Account would be subject to foreclosure, lien, judgment, or bankruptcy, the escrow agreement will be structured to reflect the following factors:
  - i. That Crowned Ridge II agreed to the creation of the Decommissioning Funding Account;
  - ii. Crowned Ridge II exercises no (or the least amount possible of) control over the Decommissioning Funding Account;
  - iii. The initial source of the Decommissioning Funding Account;
  - iv. The nature of the funds deposited into the Decommissioning Funding Account;
  - v. The recipient of its remainder following the completion of

- decommissioning activities (if any);
- vi. The target of all its benefit; and
  - vii. The purpose and its creation.
- i) Decommissioning Funding Account funds are to be paid to the Project owner at the time of decommissioning and shall be paid out as decommissioning costs are incurred and paid.
  - j) If the Project owner fails to execute the decommissioning requirement found in this section of the Permit Conditions, the Decommissioning Funding Account shall be payable to the landowner who owns the land on which associated Project facilities are located as the landowner incurs and pays decommissioning costs.
34. Applicant shall apply to the Federal Aviation Administration (FAA) for approval to utilize an Aircraft Detection Lighting System. Such application shall be made to allow enough time for a FAA determination and system construction prior to the commercial operation date of the Project. If approved, the system will be operated in accordance with the applicable FAA requirements starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outage.
35. Shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver. Prior to construction, Applicant shall obtain and file with the Commission a waiver for any occupied structure which will experience more than 30 hours of shadow flicker per year. If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission approval of the mitigation plan.
36. Applicant will use 2 methods to detect icing conditions on wind turbine blades: (1) sensors that will detect when blades become imbalanced or create vibration due to ice accumulation; and (2) meteorological data from on-site permanent meteorological tower(s), on-site anemometers, and other relevant meteorological sources that will be used to determine if ice accumulation is occurring. These control systems will either automatically shut down the wind turbine(s) in icing conditions (per the sensors) or Applicant will manually shut down wind turbine(s) if icing conditions are identified (using meteorological data). Wind turbines will not return to normal operation until the control systems no longer detect an imbalance or when weather conditions either remove icing on the blades or indicate icing is no longer a concern. Applicant will pay for any documented property damage caused by ice thrown from a wind turbine.
37. Wind turbines shall be set back at least 1.1 times the tip height, with a minimum set back distance of 500 feet, from any surrounding property line. However, if the Project owner has a written agreement with an adjacent landowner allowing the placement of the wind turbine closer to the property line, the wind turbine may be placed closer to the property line shared with that adjacent landowner.
38. Applicant shall implement the avoidance, minimization, and mitigation measures identified as follows for Traditional Cultural Properties (TCPs):

- a) Implement standard avoidance or resource protection practices (e.g., barrier fencing, contractor training) for TCPs, where feasible, in collaboration with the Sisseton-Wahpeton Oyate, Yankton Sioux, Rosebud Sioux, and Spirit Lake Tribal Historic Preservation Officers (THPOs) and Applicant;
  - b) Make reasonable efforts to identify participating landowners who may be willing to work with the tribes on site preservation, accessibility, and protection of TCPs on their property;
  - c) Conduct site revisits prior to construction;
  - d) Help facilitate post-construction site revisits for tribes with the landowners; and
  - e) Identify and implement education/interpretation opportunities regarding tribal resource preservation and/or Native American perspectives which may include sensitivity training when needed.
39. For purposes of this Project and the commitments herein, “residences,” “business(es),” “structures,” “schools,” “churches,” “cemeteries,” and “public buildings” shall include only those that are in existence and in use as of the date of the Order.
40. The Permit Conditions shall be uniform conditions of construction and operation, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular Permit Condition should not be applied and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis, which evaluation shall be completed within 60 days unless exigent circumstances require action sooner.
41. Applicant shall provide a copy of the Commission’s Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry in this docket to the affected county, townships, and municipalities in the Project Area.
42. At least 30 days prior to the commencement of construction work in the field for the Project, Applicant will provide to Staff the following information:
- a) the most current preconstruction design, layout, and plans, including the wind turbine model;
  - b) a sound level analysis showing compliance with the applicable sound level requirements;
  - c) a shadow flicker analysis showing the anticipated shadow flicker levels will not exceed applicable requirements per year at any residence, absent a waiver agreement executed by the residence owner(s);
  - d) should Applicant decide at a later point to use a different wind turbine model, it shall provide the information required in parts a-c above. Applicant shall also demonstrate that in selecting locations for the other wind turbines, it considered how to reduce impacts on non-participating landowners; and
  - e) additional Project preconstruction information as Staff requests.

43. At least 30 days prior to commencement of construction, Applicant shall submit the identity and qualifications of a public liaison officer to the Commission for approval to facilitate the exchange of information among Applicant, including its contractors, landowners, local communities, and residents, and to facilitate prompt resolution of complaints and problems that may develop for landowners, local communities, and residents as a result of the Project. Applicant shall file with the Commission its proposed public liaison officer's credentials for approval by the Commission prior to the commencement of construction. After the public liaison officer has been approved by the Commission, the public liaison officer may not be removed by Applicant without the approval of the Commission. The public liaison officer shall be afforded regular access to Applicant's on-site Project manager, its executive Project manager, and to the contractors' on-site managers and shall be available at all times to Staff via mobile phone to respond to complaints and concerns communicated to the Staff by concerned landowners and others. Within 10 working days of when Applicant's public liaison officer has been appointed and approved, Applicant shall provide contact information for him/her to all landowners in the Project Area and to law enforcement agencies and local governments in the vicinity of the Project. The public liaison officer's contact information shall be provided to landowners in each subsequent written communication with them. If the Commission determines that the public liaison officer has not been adequately performing the duties set forth for the position in this Order, the Commission may, upon notice to Applicant and the public liaison officer, take action to remove the public liaison officer. The public liaison's services shall terminate after the Project completes final reclamation of disturbed land, unless the appointment is terminated earlier than set forth above, or extended, by order of the Commission.
44. Prior to the construction of the Project, Applicant will notify public safety agencies by providing a schedule and the location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, the sheriffs of Codington County, Deuel County, and Grant County, and the Codington County, Deuel County, and Grant County Offices of Emergency Management.
45. Within 90 days after the Project's commercial operation date, Applicant shall submit a report to the Commission that provides the following information:
- a) as-built location of structures and facilities, including drawings clearly showing compliance with the setbacks required by state and local governments set forth in Table 13.1 of the Application;
  - b) ArcGIS shapefiles of the final wind turbine and facility layout;
  - c) the status of remedial activities for road damage, landowner property damage, crop damage, environmental damage, or any other damage resulting from Project construction activities; and,
  - d) a summary of any known landowner complaints and Applicant's plan for resolving those complaints.
46. Applicant shall establish a procedure for preventing whooping crane collisions with wind turbines during operations by establishing and implementing formal plans for monitoring the Project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the Project and shutting down wind turbines and/or construction activities within 2 miles of whooping crane sightings. The SD GF&P

will be consulted on the procedure to minimize impacts to whooping cranes.

47. Commercial operation may not begin prior to completion of the installation of low noise trailing edge blade attachments on Crowned Ridge Wind I turbines.
48. Project owner must cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.
49. Applicant shall allow Crowned Ridge Wind, LLC, and SD GF&P access to the Project Area to conduct a pre- and post-construction study to evaluate the potential effect of the Crowned Ridge Wind II Project on the local prairie grouse populations. Crowned Ridge Wind, LLC plans to conduct studies in the Crowned Ridge Wind II Project Area in accordance with the plan submitted on December 18, 2019, in Docket EL19-003.

### NOTICE OF ENTRY

PLEASE TAKE NOTICE that this Final Decision and Order Granting Permit to Construct Facility; Permit Conditions was duly issued and entered on the 6th day of April 2020.

Dated at Pierre, South Dakota, this 6th day of April 2020.

<b>CERTIFICATE OF SERVICE</b>
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically or by mail.
By: <u>Karen E. Cromer</u>
Date: April 6, 2020
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Gary Hanson

GARY HANSON, Chairman

Chris Nelson

CHRIS NELSON, Commissioner

Kristie Fiegen

KRISTIE FIEGEN, Commissioner





## **Crowned Ridge II Wind General Safety Information**

1. This document lays out reasonable safety precautions for activities on or near the Crowned Ridge Wind II Project;

The Crowned Ridge Wind II Project will be constructed in an area that has very high agricultural activity. Items of concern are:

- a. Farm equipment - Please be mindful when using large farm equipment in close proximity to the project's construction/erection equipment, including excavations and trenching. Barricades, warning tape or dirt berms will be used to protect all ground openings and to guard DO NOT ENTER work areas.
- b. Herbicides and pesticides - Landowners will be asked to supply chemical lists and time periods of use; in addition we will ask to be notified before landowners apply chemicals to the land in close proximity to the project.
- c. Night-time activities - We recognize planting and harvest seasons will be a busy time for local landowners. We would ask that you help maintain equipment to prevent unseen material from being a hidden danger, especially at night. In the event there is night-time construction, we will utilize external lights to highlight the construction area. All workers are required to wear high visibility clothing, with reflective strips.
- d. Traffic - During construction of the project, you can expect heavy traffic on local roads, which may include sharing the roads between construction equipment and large agricultural equipment. We will instruct our construction team on best practices for sharing the road. All light vehicles should pull off to the side of the road to allow larger vehicles to pass (and early enough so the other driver will know you are pulling over).
- e. Private land and hunting - For the safety of workers, hunting is not permitted near the project construction site.
- f. School Buses - Our construction team will conduct regular safety meetings that include awareness of local school bus routes and the proper responses to all school bus activity.
- g. Firearms - South Dakota is now a Constitutional Carry firearm state. Despite this law, no construction site personnel will be allowed to carry weapons.
- h. High voltage lines, overhead/underground electric lines - Our construction team has done extensive work, working with the state of South Dakota to identify known potential dangers in the project area. All overhead lines will be marked across the project as well as all buried lines to prevent trenching/plowing into these areas.
- i. Any known restricted activity - All federal, state and local laws are in place and effective for the project construction. No other known activity is restricted, nor is any construction or operation SOP known to be prohibited.



## **Construction / Maintenance Damage Compensation Procedures**

### **1. CROP COMPENSATION CALCULATION GUIDELINES**

#### **Crowned Ridge Wind II Easement Agreements**

Owner will be compensated for crop damage, or any assistance/activities related to Damages will be calculated by the following formula:

$$\text{Unit Price} \times \text{Unit Yield Per Acre} \times \text{Acres Damaged} = \text{Damages}$$

Prices for damaged or destroyed crops will be based on the average of the last previous March 1<sup>st</sup> and September 1<sup>st</sup> Chicago Board of Trade ("CBOT") prices for that crop. If the crop is not traded on the CBOT, the price shall be based on the dominant trading exchange for that crop, but the formula shall remain the same. Yield will be the average of the previous three (3) years' yields according to Owner's records for the smallest parcel of land that includes the damaged area. If Owner does not have yield records available, the parties will use National Agricultural Statistic Services ("NASS"), Farm Service Agency records or other commonly used yield information available for the area. The parties shall try in good faith to agree to the extent of damage and acreage affected.

If damage occurs during the initial construction of the Project, a crop compensation form shall be completed and delivered to Crowned Ridge Wind II within two hundred forty (240) days after the completion of construction of the Project.

If damage occurs during operation of the Project, a crop compensation form shall be completed and delivered to Crowned Ridge Wind II within two hundred and forty (240) days after the damage occurs.

Within sixty (60) days of the Effective Date, Operator will pay the agreed upon compensation. Operator shall not be obligated to pay any amounts due until it receives a completed W-9 form from the party to be paid.

Crop compensation will be issued to the owner or owner's designee. The crop owner could be the owner of the property or the tenant farmer of the property depending on how the farming operations or ownership of crops is structured for the given property.

**2. PROPERTY CARE, RESTORATION, REPAIR AND MAINTENANCE**

**Care and Appearance.** Operator, in its exercise of the easement and other rights granted hereunder shall, at all times, maintain the Improvements in a reasonably neat, clean and presentable condition, consistent with its current usage. Operator shall not willfully or negligently damage or destroy the Owner's Property, but if tiles are damaged, Operator will replace tiles and restore drainage to original condition. Owner may also elect to hire a third party to replace tiles and restore drainage tiles if preferred by Owner. Operator shall keep the Owner's Property clean and free of debris created by Operator, its contractors, or others brought on to the Owner's Property by Operator. Operator shall not use the Owner's Property for storage, except for materials, construction equipment and vehicles directly associated with construction or maintenance of the Improvements on the Owner's Property or adjacent properties that are part of the Wind Farm.

**Fences and Gates.** Within a reasonable time following Owner's request, Operator shall repair or replace any fences, gates or cattle guards damaged or removed in connection with Operator's activities on the Owner's Property. Fences removed from the Owner's Property, if replaced, shall be re-built by Operator at its expense in mutually agreeable locations. All fences, gates, and cattle guards that need to be replaced by Operator shall be of similar type and materials to the ones removed. Once completed, all replacement fences, gates and cattle guards shall be owned and maintained by Owner. To minimize the need for temporary fencing, Owner will cooperate with Operator to avoid pasturing animals on or near the Improvements during periods of construction, maintenance or removal activity by Operator.

**Roadway Maintenance and Repairs.** Operator agrees to maintain and repair all Roadway Improvements located on the Access Easement for the joint use thereof by the Parties for ingress and egress over, across, and along the Access Easement; provided, however, Owner shall reimburse Operator for any costs and expenses incurred by Operator to repair any damage or perform any special maintenance of the roadway caused by Owner or any person using the roadway with Owner's permission, other than Operator.

# Crowned Ridge Wind II, LLC

## Project Liaison Officer

I would like to inform you that the South Dakota Public Utility Commission (Commission) approved Brian Riniker as the Crowned Ridge II Wind Farm (Project) Public Liaison Officer on March 31, 2020. A Public Liaison Officer has been appointed to work directly with you in the event your questions or concerns are not resolved through discussions with the Crowned Ridge Wind II, LLC (CRWII) project team. In addition, Brian Riniker will facilitate the exchange of information between landowners and the Commission, should it be necessary. The Public Liaison Officer, pictured below, can be contacted at:



**Brian Riniker**

5701 South Corporate Place Suite 1

Sioux Falls, SD 57108

(605)777-4054

[CrownedRidgePLO@ulteig.com](mailto:CrownedRidgePLO@ulteig.com)

While CRWII continues to be willing and available to answer any questions you may have regarding the Project, Brian Riniker will serve as another point of contact for your local community through the construction process of the Project located in Grant, Codington and Deuel County, South Dakota.

We look forward to addressing any questions you may have and working with you through the construction and operations of the Project.

Sincerely,



Tyler Wilhelm

Senior Project Manager

Crowned Ridge Wind II, LLC