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

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IN THE MATTER OF THE APPLICATION BY DEUEL HARVEST WIND ENERGY SOUTH LLC FOR ENERGY FACILITY PERMITS OF A WIND ENERGY FACILITY AND A 345-KV TRANSMISSION FACILITY IN DEUEL COUNTY, SOUTH DAKOTA, FOR THE SOUTH DEUEL WIND PROJECT FINAL DECISION AND ORDER GRANTING PERMITS TO CONSTRUCT FACILITIES; NOTICE OF ENTRY

EL24-023

#### **APPEARANCES**

Commissioners Gary Hanson, Chris Nelson, and Kristie Fiegen.

Lisa M. Agrimonti and Patrick Mahlberg, Fredrikson & Byron, P.A., 60 S. Sixth St., Ste. 1500, Minneapolis, MN 55402, appeared on behalf of Applicant, Deuel Harvest Wind Energy South LLC (Deuel Harvest or Applicant).

Amanda Reiss and Logan Schaefbauer, 500 E. Capitol Ave., Pierre, South Dakota 57501, appeared on behalf of the South Dakota Public Utilities Commission Staff (Staff).

Arla Hamann Poindexter, pro se Intervenor, Clear Lake, South Dakota.

#### PROCEDURAL HISTORY

On June 28, 2024, the Commission received an Application for Energy Facility Permits (Application) from Deuel Harvest Wind Energy South LLC (Deuel Harvest or Applicant), an affiliate of Invenergy LLC. Deuel Harvest proposes to construct a wind energy facility and a 345 kilovolt (kV) transmission line (Gen-Tie Line) located in Deuel County, South Dakota, known as the South Deuel Wind Project (Project). The Project would be situated within an approximately 34.339-acre project area, in the townships of Blom, Brandt, Clear Lake, Norden, and Scandinavia. The total installed capacity of the Project would not exceed 260 megawatts (MW) of nameplate capacity and would deliver up to 250 MW to the point of interconnection. The proposed Project includes up to 68 wind turbines, electrical collection and supervisory control and data acquisition systems, a 34.5 kV to 345 kV collector substation, an approximately six-mile long 345 kV generator transmission tie line, improvements to enable the interconnection of the Project into the existing 345 kV Astoria interconnection switchyard, an operations and maintenance facility, up to two aircraft detection lighting system towers; access roads, and up to three meteorological towers. The Project will also include temporary construction areas including crane paths, public road improvements, a general construction laydown yard, staging areas, and a concrete batch plant, as needed. The Gen-Tie Line will transmit electricity from the collector substation to the point of interconnection at the existing Astoria 345 kV interconnection switchyard owned by Otter Tail Power Company. The Project is expected to begin commercial operation in December 2026.

On July 9, 2024, the Commission issued a Notice of Application; Order for and Notice of Public Input Meeting; Notice of Opportunity to Apply for Party Status. Pursuant to ARSD 20:10:22:40, the deadline to file an application for party status was August 27, 2024. A public input meeting was held on August 22, 2024, in Clear Lake, South Dakota. The Commission granted party status to Matthew Holden, Arla Hamann Poindexter, the Lake Cochrane

Improvement Association, Inc., Jay Grabow, and Josh Bekaert.

The Parties agreed to and the Commission established a procedural schedule by Commission order dated September 25, 2024. Pursuant to the procedural schedule, Applicant, Staff, and Arla Hamann Poindexter filed prefiled testimony.

On November 6, 2024, Intervenor Lack Cochrane Improvement Association filed a letter notifying the Commission that it intended to focus on Federal Aviation Association's proceedings rather than the proceedings in this docket.

On December 5, 2024, Deuel Harvest filed prefiled rebuttal testimony of Ms. Monterrosa, Ms. Phillips, Ms. Thompson, Mr. Hankard, and Mr. Christopher Harrington.

On January 13, 2025, Ms. Hamann Poindexter filed Exhibits P1 through P10.

On January 14, 2025, Applicant filed Exhibits A1 through A18 for hearing. Deuel Harvest also submitted its Witness List and Exhibit List.

Also on January 14, 2025, Staff filed Exhibits S1 through S9 for hearing. Staff also submitted its Witness List and Exhibit List. On January 16, 2025, Staff filed additional Exhibit S10.

A prehearing conference was held on January 16, 2025, conducted by commission counsel Kristen Edwards. Parties present were Applicant, Staff, and Ms. Hamann Poindexter. At the prehearing conference, Parties present stipulated to the admission of all prefiled exhibits with the exception of P2, P10, A17, and A17-1. Exhibit P2 was ultimately admitted without objection at the evidentiary hearing. In addition to the prefiled exhibits, the Commission admitted Exhibit A19 into evidence at the evidentiary hearing, and the exhibit was filed on January 22, 2025.

The evidentiary hearing in this matter was held on January 21, 2025. On January 29, 2025, the Commission issued an Order for and Notice of Post-Hearing Briefing Schedule and Decision Date. Post-hearing briefs were submitted by Applicant, Staff, and Ms. Hamann Poindexter.

On February 28, 2025, at the Commission's regularly scheduled meeting, the Parties made oral arguments. After hearing the arguments and asking questions of the Parties, the Commission voted unanimously to grant a permit to Applicant to construct a wind energy facility and a 345 (kV) transmission line subject to certain 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 Order:

#### **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. Applicant, Deuel Harvest Wind Energy South LLC, is a subsidiary of Invenergy Wind Development North America LLC and an affiliate of Invenergy LLC (Invenergy), a privately held company.<sup>1</sup>

3. Matthew Holden, Arla Hamann Poindexter, Jay Grabow, Josh Bekaert, and the Lake Cochrane Improvement Association were granted party status (Intervenors).

4. Staff fully participated as a party in this matter, in accordance with SDCL 49-41B-17.

#### III. PROJECT DESCRIPTION.

4. The proposed Project is an up to 260-megawatt wind energy conversion facility to be located on approximately 29,258-acres of land in Deuel County, in the townships of Blom, Brandt, Clear Lake, Norden, and Scandinavia South Dakota. The Project would deliver up to 250 megawatts via an approximately 6-mile long 345 kV generator tie line (Gen-Tie Line) to the point of interconnection at the existing Astoria Interconnection switchyard,<sup>2</sup> owned by Otter Tail Power Company.<sup>3</sup>

5. Applicant has no plans for future expansion of the Project.<sup>4</sup>

6. The proposed Project would include up to 68 wind turbines, electrical collection and supervisory control and data acquisition systems, a 34.5-kV to 345-kV collection substation, improvements to enable the interconnection of the Project into the existing 345 kV Astoria Interconnection switchyard, an operations and maintenance facility, up to two aircraft detection lighting system towers, access roads, and up to three meteorological towers. The Project will also include temporary construction areas, crane paths, public road improvements, a general construction laydown yard, staging areas, and a concrete batch plant, as needed.

7. The estimated cost to construct the proposed project is \$621 million based on indicative construction and wind turbine pricing cost estimates and including lease acquisition, permitting, engineering, financing, procurement, and construction of the Project Facilities.<sup>5</sup>

8. Applicant explained the Project is actively submitting bids for power purchase agreement opportunities and the energy from the proposed Project will be transmitted onto the MISO grid where it will contribute to meeting electricity demand across the MISO service territory.<sup>6</sup>

9. Applicant has entered into long-term, voluntary lease and easement agreements with private landowners within the Project area for placement of the Project facilities that provide for a total operating period of 50 years.<sup>7</sup> Applicant anticipates that the life of the project will be approximately 30 years.<sup>8</sup>

<sup>6</sup> Ex. A1 at Section 2, p. 24.

<sup>&</sup>lt;sup>1</sup> Ex. A1 at Section 1.3, p. 3 (Application).

<sup>&</sup>lt;sup>2</sup> Ex. A1 at Section 1.1, p. 1.

<sup>&</sup>lt;sup>3</sup> Ex. A1 at Section 4.2.11, page 33.

<sup>&</sup>lt;sup>4</sup> Ex. A1 at p. 119.

<sup>&</sup>lt;sup>5</sup> Ex. A1 at Section 3, p. 27.

<sup>&</sup>lt;sup>7</sup> Ex. A1 at Section 4.3, p. 34.

<sup>&</sup>lt;sup>8</sup> Ex. A1 at Section 1.1, p. 9.

10. The commercial operation date for the Project is projected to be on or before December 2026.<sup>9</sup>

11. South Deuel Wind has identified 73 proposed turbine locations and proposes to erect up to 68 wind turbines depending on the nameplate capacity(s) of the turbine model(s) procured.<sup>10</sup> South Deuel Wind presented three potential turbine models for use in the Project in the Application: General Electric 3.8-154, Siemens Gamesa 4.4-164, and Vestas 163-4.5.<sup>11</sup> South Deuel Wind requested that the Permits allow for the use of turbine models of comparable capacity and specifications, provided the Project complies with county siting standards and the conditions specified in the Permits.<sup>12</sup> Regarding Applicant's desired turbine model flexibility, Applicant and Staff agreed to the "material change" provisions set forth in Applicant's and Staff's Condition No. 22.<sup>13</sup>

12. With regard to micrositing, Applicant provided evidence to support the need for Project Facility siting flexibility.<sup>14</sup> With respect to turbine flexibility, Applicant and Staff agreed to the turbine flexibility and "material change" provisions set forth in Applicant's and Staff's Condition No. 22.<sup>15</sup> With respect to the electrical collection and SCADA systems, Collector Substation, O&M Facility, access roads, MET towers, ADLS towers, and temporary construction areas, Applicant and Staff agreed to Condition No. 24 of Applicant's and Staff's Terms and Conditions.<sup>16</sup> With respect to the transmission structures, Applicant and Staff agreed to siting flexibility and "material change" provisions set forth in Applicant's Condition No. 23.<sup>17</sup>

13. The record demonstrates that Applicant has made appropriate and reasonable plans for decommissioning.<sup>18</sup> During the evidentiary hearing, Applicant committed to decommissioning turbine foundations to a depth of 48 inches.<sup>19</sup> With respect to financial security for decommissioning, Staff and Applicant have agreed to Condition No. 40 of Applicant's and Staff's Terms and Conditions, which provides for a decommissioning escrow account.<sup>20</sup> Applicant and Staff also agreed to Condition No. 41 of Applicant's and Staff's Terms and Conditions, which provides for decommissioning in the event Applicant is purchased by a utility that is rate regulated by the Commission.<sup>21</sup>

14. Applicant was granted a Conditional Use Permit for the Project from Deuel County in 2023.<sup>22</sup>

15. Prior to the evidentiary hearing, Staff and Applicant agreed to 48 Terms and Conditions regarding construction, operation, and decommissioning of the Project.<sup>23</sup> Staff

<sup>12</sup> Ex. A1 at 4.2.1 (Application).

<sup>&</sup>lt;sup>9</sup> Ex. A1 at Table 4.4.1, p.27.

<sup>&</sup>lt;sup>10</sup> Ex. A1 at 4.2.1 (Application).

<sup>&</sup>lt;sup>11</sup> Ex. A1 at 4.2.1; Table 4.2.1 (Application).

<sup>&</sup>lt;sup>13</sup> Ex. A18 at ¶ 22 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>14</sup>See, e.g., Ex. A1 at Section 4.2, p. 21, Ex. A11 at p. 4 (Monterrosa Rebuttal), Ex. A2 at p. 13

<sup>(</sup>Thompson Direct).

<sup>&</sup>lt;sup>15</sup> Ex. A18 at ¶ 22 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>16</sup> Ex. A18 at ¶ 24 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>17</sup> Ex. A18 at ¶ 23 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>18</sup> See Ex. A1 at Appendix X (Decommissioning Plan); Ex. S4 at 1-59; Ex. S8 at 6-1, 6-2, and 6-3; Ex. A1 at Ch. 18; Ex. A4 at 11-12 (Monterrosa Direct); Ex. A11 at 5-6 (Monterrosa Rebuttal); Ex. A18 at ¶¶ 35, 40, 41 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>19</sup> EH Tr. 77:6-8 (Transcript of Evidentiary Hearing).

<sup>&</sup>lt;sup>20</sup> Ex. A18 at ¶ 40 (Applicant's and Staff's Terms and Conditions).

<sup>&</sup>lt;sup>21</sup> Ex. A18 at ¶ 41.

<sup>&</sup>lt;sup>22</sup> Ex. A1 at p. 1.

<sup>&</sup>lt;sup>23</sup> See, e.g., Ex. A18.

witness Mr. Thurber testified during the evidentiary hearing that Staff agrees with the Terms and Conditions, and the Terms and Conditions resolved all of Staff's material concerns in this docket.<sup>24</sup>

#### IV. APPLICABLE STATUTES AND REGULATIONS FOR AN ENERGY FACILITY PERMIT.

16. The following South Dakota statutes are applicable: SDCL 49-41B-1, 49-41B-2, 49-41B-2.1, 49-41B-4, 49-41B-5.2, 49-41B-12 through 49-41B-19, 49-41B-22, 49-41B-25, 49-41B-26, 49-41B-35, 49-41B-36, and applicable provisions of SDCL Chapters 1-26 and 15-6.

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

- 18. 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 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.

19. SDCL 49-41B-25 provides that the Commission must make a finding that the construction of the wind energy facility meets all of the requirements of Chapter 49-41B.

20. SDCL 49-41B-24 provides that the Commission shall make a finding that the construction of the transmission line meets all of the requirements of Chapter 49-41B.

21. There is sufficient evidence on the record for the Commission to assess the proposed Project using the criteria set forth above and make the required findings.

## V. SATISFACTION OF REQUIREMENTS FOR THE ISSUANCE OF AN ENERGY FACILITY PERMIT.

<sup>&</sup>lt;sup>24</sup> EH Tr. 156:23-15:10.

# A. <u>The proposed facility will comply with all applicable laws and rules (49-41B-22(1))</u>.

22. The evidence submitted by South Deuel Wind demonstrates that the Project will comply with applicable laws and rules.<sup>25</sup> Applicant and Staff have agreed to Condition No. 1, which provides that the 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."<sup>26</sup>

23. The record demonstrates that construction of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.<sup>27</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. 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 condition of inhabitants or expected inhabitants in the siting area (49-41B-22(2)).

#### Social and economic condition of inhabitants or expected inhabitants in the siting area.

24. Applicant holds a Conditional Use Permit (CUP) from Deuel County, South Dakota for the Project.<sup>28</sup> Pursuant to SDCL 49-41B-22(2), the CUP 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. Therefore, as a matter of law, the Project is determined not to threaten the social and economic condition of inhabitants in the siting area.<sup>29</sup>

#### Environment.

25. The evidence demonstrates that the Project does not pose a threat of serious injury to the environment in the Project Area.<sup>30</sup> The Evidence shows Applicant will implement reasonable avoidance and mitigation measures, as well as commitments to further limit potential environmental impacts.<sup>31</sup>

26. Intervenor Arla Hamann Poindexter testified on her own behalf regarding environmental issues, especially those related to grasslands.<sup>32</sup> Ms. Hamann Poindexter has 25 years of experience managing Hamann Family Farms LLC and is the recipient of a 2017 statewide conservation award.<sup>33</sup>

<sup>&</sup>lt;sup>25</sup> See, e.g., Ex. A1 at Sections 1.4, 22.1 (Application), Ex. A3 at p. 3 (O'Connor Direct).

<sup>&</sup>lt;sup>26</sup> Ex. A18 at ¶ 1.

<sup>&</sup>lt;sup>27</sup> Ex. A1 through Ex. A18.

<sup>&</sup>lt;sup>28</sup> Ex. A1 at Appendix B (CUP).

<sup>&</sup>lt;sup>29</sup> SDCL 49-41B-22(2).

<sup>&</sup>lt;sup>30</sup> Ex. A1 at Sections 6, 7, 8, 9, 10, 11, 13, and 14, p. 47-111.

<sup>&</sup>lt;sup>31</sup> Ex. A1 at Sections 6, 7, 8, 9, 10, 11, 13, and 14, p. 47-111.

<sup>&</sup>lt;sup>32</sup> See Ex. P1 (Hamann Poindexter Direct).

<sup>&</sup>lt;sup>33</sup> Ex. P1, p.1.

27. With respect to geological resources, the evidence shows that construction of the Project will not pose a threat of serious injury to these resources. According to the USGS 2014 Seismic Hazard Map, the risk of seismic activity in the Project area is extremely low to negligible.<sup>34</sup> The evidence further shows that the impact to geological resources from the Project will be minimal.<sup>35</sup>

28. The Project will impact approximately 1,058-acres during construction, and approximately 51 acres on a permanent basis.<sup>36</sup>

29. The evidence in the record demonstrates that the Project does not pose a threat of serious injury to soil resources.<sup>37</sup> Table 7.2.1.4 of the Application identifies temporary and long-term ground impacts to farmland from the Project.<sup>38</sup> Applicant committed to implement a number of mitigation measures, including best management practices (BMP) and a Storm Water Pollution Prevention Plan (SWPPP) to minimize the impacts to soil resources.<sup>39</sup> Additionally, Applicant 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>40</sup>

30. Applicant demonstrated that it will minimize and/or avoid impacts to hydrological resources.<sup>41</sup> The record demonstrates that Applicant has minimized impacts to wetlands and water bodies.<sup>42</sup> The Project is not anticipated to have long-term impacts on groundwater resources.<sup>43</sup> There are portions of Deuel County that have not been mapped for FEMA floodplains. However, the area surrounding Brandt, South Dakota was mapped for floodplains in 2022, of which a portion crosses into the Project Area. There are 98 acres of FEMA Flood Zone A within the Project Area.<sup>44</sup>

31. Based on the Project layout, any potential impacts to floodplains will be temporary in nature, and existing contours and elevations would be restored upon completion of construction.<sup>45</sup> Furthermore, routine operation and maintenance activities are not expected to affect groundwater resources. Project Facilities have been designed to minimize impacts on surface water resources.<sup>46</sup>

32. Applicant has demonstrated that it will minimize and/or avoid impacts to wetlands and streams. To the extent practicable, Project Facilities have been sited in upland areas, avoiding low-lying wetlands and streams. No proposed turbine locations are located in wetland basins. Impacts to wetlands will be avoided or minimized through limiting disturbance of individual wetlands during project construction as well as identifying wetland boundaries by

- 40 Ex. A18¶ 15.
- <sup>41</sup> See Ex. A1 at Section 8.1.2, 8.2.2.
- <sup>42</sup> See Ex. A1 at Section 8.2.2.

- <sup>44</sup> See Ex. A1 at Section 8.2.1.4.
- <sup>45</sup> Ex. A1 at Section 8.2.2.6.

<sup>&</sup>lt;sup>34</sup> Ex. A1 at Section 7.1.1.5, p. 51.

<sup>&</sup>lt;sup>35</sup> Ex. A1 at Section 7.1.

<sup>&</sup>lt;sup>36</sup> Ex. A4 at 10:289-292 (Monterrosa Direct).

<sup>&</sup>lt;sup>37</sup> Ex. A1 at Section 7.2, p. 52-57.

<sup>&</sup>lt;sup>38</sup> Ex. A1 at Section 7.2, p. 56.

<sup>&</sup>lt;sup>39</sup> Ex. A1 at Section 7.2, p. 52 through 57; Ex. A18 ¶ 14.

<sup>&</sup>lt;sup>43</sup> See Ex. A1 at Section 8.1.2.

<sup>&</sup>lt;sup>46</sup> Ex. A2 at p. 5 (Thompson Direct).

delineating them prior to construction.<sup>47</sup> Staff witness Mr. Switzer of the SDGFP testified that these are appropriate measures.<sup>48</sup>

33. The evidence 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>49</sup> Applicant committed to implement a number of BMPs to mitigate any impact of the Project on air and water quality.<sup>50</sup>

34. The evidence in the record demonstrates that the Project does not pose a threat of serious injury to wildlife. Applicant has conducted extensive studies and consulted relevant studies to understand the potential impact to wildlife.<sup>51</sup> Applicant coordinated with USFWS and the SDGFP since 2016 and has considered agency comments in designing the Project.<sup>52</sup> Applicant will implement avoidance and minimization measures to lessen the impact the Project has on wildlife.<sup>53</sup> Additionally, Applicant agreed to establish a procedure for preventing whooping crane collisions with turbines<sup>54</sup> and agreed to undertake a minimum of two years of independent postconstruction avian and bat mortality monitoring in the Project area.<sup>55</sup>

35. The evidence demonstrates that the Project does not pose a threat of serious injury to aquatic ecosystems.<sup>56</sup>

36. The evidence in the record, including the Permit conditions, demonstrates Applicant will minimize or avoid impacts to cultural resources. Applicant has undertaken extensive studies, surveys, and consultation with the SD SHPO and Tribes in the vicinity of the Project area to identify and avoid sites of cultural, archaeological, and historical importance.<sup>57</sup> The Project will not result in direct physical impacts to any National Register of Historic Places listed or eligible resources.<sup>58</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>59</sup> Applicant will 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>60</sup> Applicant will file with the Commission the final cultural resources report prior to commercial operation.<sup>61</sup>

<sup>&</sup>lt;sup>47</sup> Ex. A12 at p. 3 (Phillips Rebuttal).

<sup>&</sup>lt;sup>48</sup> Ex. S2 at p. 13 (Switzer Direct) ("The application mentions under mitigation measures for wildlife that wetlands will be avoided or minimize disturbance of individual wetlands during project construction as well as identifying wetland boundaries by delineating them prior to construction. These are appropriate measures.").

<sup>&</sup>lt;sup>49</sup> Ex. A1 at Sections 13 and 14, p. 109-111.

<sup>&</sup>lt;sup>50</sup> Ex. A1 at Sections 13 and 14, p. 109-111.

<sup>&</sup>lt;sup>51</sup> Ex. A1 Exhibits E, F, G, H, I, J, K. L; Ex. A1 at Section 22.2.1.

<sup>&</sup>lt;sup>52</sup> Ex. A1 at Section 22.2.1, p. 136-139.

<sup>&</sup>lt;sup>53</sup> Ex. A1 at Section 9.4.2, p. 89-91.

<sup>&</sup>lt;sup>54</sup> Ex. A18 ¶ 37.

<sup>&</sup>lt;sup>55</sup> Ex. A18 Condition 46.

<sup>&</sup>lt;sup>56</sup> Ex. A1 at Section 10, p. 91-94.

<sup>&</sup>lt;sup>57</sup> Ex. A1 at Section 15.5, p. 120-125.

<sup>&</sup>lt;sup>58</sup> Ex. A1 at Section 15.5.3, p. 124-125.

<sup>&</sup>lt;sup>59</sup> Ex. A18 at ¶ 11.

<sup>60</sup> Ex. A18 at ¶ 12.

<sup>61</sup> Ex. A18 at ¶ 13.

### C. <u>The facility will not substantially impair the health, safety, or welfare of the inhabitants of the siting area (49-41B-22(3))</u>.

37. The weight of the evidence in the record demonstrates that the Project, if constructed and operated in accordance with the Permit Conditions of this decision, will not substantially impair human health, welfare or safety of the inhabitants.

38. The Commission finds the testimony of Arla Hamann Poindexter to be persuasive with respect to noise-related construction burdens.<sup>62</sup> Applicant testified that construction activities are generally planned to take place during the day and in the event nighttime activities were needed, Applicant would avoid using noise in proximity to the residences in the project area.<sup>63</sup> Commissioner Nelson dissented as to this finding.

39. In the Application, Applicant stated that "[t]o minimize the impact of construction sound, the Project will limit any necessary nighttime work near residences to quiet activities such as finishing, maintain equipment to manufacturers' specifications, and minimize backing up on site of delivery trucks."<sup>64</sup>

40. The Commission further finds that concerns regarding nighttime construction noise will be sufficiently mitigated by a condition limiting the construction activities that take place during nighttime hours. However, the Commission finds that for purposes of this finding and related condition, construction activities are understood not to include transit. Commissioner Nelson dissented as to this finding.

41. 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 Lightning System (ADLS) in accordance with SDCL 49-41B-25.2 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>

42. The record demonstrates that Applicant has sited the Project to ensure the sound level produced from the Project is limited to 45 dBA at non-participating residences in accordance with Deuel County ordinance.<sup>67</sup> Applicant also committed to take all reasonable efforts to minimize the impact of sound throughout construction.<sup>68</sup> The modeling methodology was satisfactory and consistent with good industry practice, resulting in realistic predictions.<sup>69</sup> Additionally, Applicant agreed to conditions supporting the commitment to adhere to the 45 dBA cumulative sound limit.<sup>70</sup>

43. The record demonstrates that Applicant has appropriately minimized the shadow and flicker for the Project and committed to limit shadow and flicker to no more than thirty hours for all participating and non-participating residences in accordance with Deuel County ordinance.<sup>71</sup> Applicant used conservative assumptions including the assumptions that all turbines with each model are operating and that there is no vegetation or obstacle present to

<sup>&</sup>lt;sup>62</sup> Ex. P1 at p. 1 (Hamann Poindexter Direct); EH Tr. 177:7-178:17.

<sup>&</sup>lt;sup>63</sup> EH Tr. 54:3-13.

<sup>64</sup> Ex. A1 at Section 11.3.2, p. 92

<sup>65</sup> Ex. A1 at Section 4.2.15, p. 34.

<sup>&</sup>lt;sup>66</sup> Ex. A1 at Section 4.2.15, p. 34; Ex. A18 at ¶ 36.

<sup>&</sup>lt;sup>67</sup> Ex. A1 at Section 11, p. 100; Ex. A1 Appendix M.

<sup>&</sup>lt;sup>68</sup> Ex. A1 at Section 11, p. 100; Ex. A1 Appendix M.

<sup>69</sup> Ex. S1 at 4:1-8.

<sup>&</sup>lt;sup>70</sup> Ex. A18 at ¶¶ 27 and 48.

<sup>&</sup>lt;sup>71</sup> Ex. A1, Appendix N, p. 5.

reduce the effect of shadow flicker, which, in turn, produces conservative modeling results.<sup>72</sup> Additionally, Applicant agreed to conditions supporting the commitment to adhere to the thirty hour shadow flicker standard.<sup>73</sup>

44. Applicant will use two methods to detect icing conditions on turbine blades in order to shut down turbines when they are accumulating ice.<sup>74</sup>

45. Applicant will mail to participating and non-participating landowners detailed safety information, including safety precautions, fourteen days prior to the commencement of construction.<sup>75</sup>

46. Applicant will cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.<sup>76</sup>

47. The evidence in the record demonstrates that the Project is not expected to adversely impact communication systems, such as microwave, AM, FM, cellular, TV, and aviation towers.<sup>77</sup> Applicant committed to take action to minimize interference the Project causes to radio, television, and other licensed communication transmitting or receiving equipment.<sup>78</sup>

#### D. <u>The facility will not unduly interfere with the orderly development of the</u> 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 (49-41B-22(4).

48. Because Applicant holds a CUP for the Project from the applicable local unit of government, Applicant has satisfied this element as a matter of law.

#### VI. GENERAL

49. 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 in SDCL 49-41B-22 for approval of a construction permit. The Commission finds the Permit Conditions should be adopted.

50. 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.

51. 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

<sup>&</sup>lt;sup>72</sup> Ex. A1, Appendix N, p. 10.

<sup>&</sup>lt;sup>73</sup> Ex. A18 at ¶¶ 28 and 29.

<sup>&</sup>lt;sup>74</sup> Ex. A18 at ¶ 42.

<sup>&</sup>lt;sup>75</sup> Ex. A18 at ¶ 4.

<sup>&</sup>lt;sup>76</sup> Ex. A18 at ¶ 43.

<sup>&</sup>lt;sup>77</sup> Ex. A1 at Section 11, p. 106-108.

<sup>&</sup>lt;sup>78</sup> Ex. A18 at ¶ 25.

environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

52. 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.

53. 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.

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

55. 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.

56. To the Extent that any Finding of Fact in this decision is determined to be a Conclusion of Law or a mixed finding of fact and conclusion of law, the same is 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 Project proposed by Applicant is a wind energy facility as defined under SDCL 49-41B-2(13) and a transmission facility as defined by SDCL 49-41B-2.1. The transmission facility is not a trans-state transmission facility as defined by SDCL 49-41B-2(11).

3. The Application submitted by Applicant, as supplemented throughout the proceedings in this matter, meets the criteria required by SDCL 49-41B-11, 49-41B-24, and 49-41B-25, and ARSD 20:10:22, and the proposed 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-24 and 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 Applicant 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. 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. 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 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-24 and 49-41B-25.

15. 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 subject to the Permit Conditions.

#### <u>ORDER</u>

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

ORDERED, that a permit to construct the Project is hereby granted to Deuel Harvest Wind Energy South, 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. 38.

#### 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 \_\_\_\_\_ day of March 2025.

Dated at Pierre, South Dakota, this \_\_\_\_\_\_ day of March 2025.

#### CERTIFICATE OF SERVICE

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 anch 202 Date:\_/0

BY ORDER OF THE COMMISSION:

sou

GARY HANSON, Chairperson

CHRIS NELSON, Commissioner

0 KRISTIE **FIEGEN**, Commissione

#### 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.
- Applicant shall construct, operate, and maintain the Project in a manner consistent with (1) descriptions in the Application, (2) Application supplements, (3) responses to any data requests, (4) the Final Decision and Order Granting Permit to Construct Facility, and attached Permit Conditions, (5) any applicable industry standards, (6) all applicable permits issued by a federal, state, or local agency and (7) Applicant's testimony.
- 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 are free to 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 and within one-half mile outside 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;
  - e) Contact person for Applicant, including name, e-mail address, and phone number.

A copy of the landowner notice letters shall be filed with the Commission to demonstrate compliance with this condition.

- 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 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 and Applicant's responses to Commission staffs data requests. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.
- 7. Applicant will negotiate road use agreements with Deuel County and all affected townships, if required, and the same shall be executed before Applicant commences construction. Applicant will follow the terms of all 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 but not limited to 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 this Condition and to the satisfaction

of affected townships and county. 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 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 original width after completion of the Project, unless otherwise agreed upon with the federal, state, county, or township entities, or the landowner.
- h) Before commencing construction, the Applicants shall furnish an indemnity bond in the amount of \$1,000,000 to comply with the requirements of SDCL 49-41B-38. Such bond shall be issued in favor of, and for the benefit of, all such townships, counties, and other governmental entities whose property is crossed by the transmission facilities. The bond shall remain in effect until released by the Commission, which release shall not be unreasonably denied following completion of the construction and repair period. Applicants shall give notice of the existence and amount of this bond to all counties, townships and other governmental entities whose property is crossed by the transmission facilities.
- 9. Applicant shall provide signage 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.
- 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 follow SDCL 34-27-25, 34-27-26, and 34-27-28 for the discovery of human remains.
- 13. Applicant shall file the final cultural resources report with the Commission prior to commercial operation. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in the final cultural resources report, 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 Agriculture and Natural Resource guidelines for such plans. The SWPPP shall 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 will be given a copy of the SWPPP and the requirements will be reviewed with them 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 agrees in writing 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 four feet, 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 shift turbines within 250 feet of their currently proposed locations, so long as they are located on land leased for the Project, the specified noise and shadow flicker thresholds are not exceeded, county siting standards are complied with, cultural resource impacts and documented habitats for listed species are avoided. potentially undisturbed grasslands are avoided, wetland impacts are avoided or are in compliance with applicable United States Army Corps of Engineers ("USACE") regulations, and all other applicable regulations and requirements are met. Prior to implementing the wind turbine location adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. If turbine shifts are greater than 250 feet, exceed the noted thresholds, or do not meet the other limitations specified. Applicant will either use an alternate turbine location or obtain Commission approval for the proposed turbine location change. Any wind turbine location adjustment that does not comply with the aforesaid limitations, or turbine model change other than listed in the Application, 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; and
- A map showing both the approved location and the proposed location adjustment (in different colors).
- Once received, Staff and the Commission shall have 10 business days to request further Commission review.
- If no further review is requested, Applicant may proceed with the location adjustment.
- If further review is requested, the Commission will issue a decision regarding Applicant's request at its next available regularly scheduled Commission meeting, subject to notice requirements, after the request for further review is made.
- 23. Applicant may shift transmission structures within the 150-foot-wide Gen-Tie Line right-of-way as needed, so long as the transmission structures are located on land leased for the Project, impacts to cultural resources are avoided or mitigated in consultation with the SHPO; wetland impacts are avoided or are in compliance with applicable USACE regulations; potentially undisturbed grasslands are avoided; and all other applicable regulations and requirements are met. Any adjustments that fall outside of the 150-foot right-of-way identified in the Application, or do not meet the above-stated limitations, are considered a "material change." If a "material change" is proposed, Applicant shall follow the same process for review of the "material change" as outlined in Paragraph 22.
- 24. Applicant may make adjustments to the location of the electrical collection and SCADA systems, Collector Substation, O&M Facility, access roads, MET towers, ADLS towers, and temporary construction areas, as needed, 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.
- 25. 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.
- 26. Applicant will provide Global Positioning System (GPS) 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.
- 27. The Project, exclusive of all unrelated background noise except for that associated with pre-existing wind turbines, shall not generate a sound pressure level (10-minute equivalent continuous sound level, Leq) of more than 45.0 dBA at non-participating residences when the nearest four Project turbines are producing full acoustic output, as measured within 25 feet of any residence unless the owner of

the residence has signed a waiver or the Commission otherwise orders. Applicant shall, upon Commission formal request, conduct valid field surveys or provide post-construction monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds 45.0 dBA at any residence; then the Project owner shall take whatever steps are necessary in accordance with prudent operating standards to rectify the situation. Sound monitoring will not be repeated in a representative area during any five-year period unless operational or maintenance changes result in a reasonable assumption of higher turbine sound levels.

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 executed as follows:

- a) The post-construction monitoring survey shall follow the applicable portions of the American National Standards Institute (ANSI) standard S12.9 Part 3, and other acoustical standard relating to equipment and calibration specifications.
- b) Noise levels shall be measured continuously for at least two weeks, or until such time that a sufficient number of valid 10-minute Leq periods are acquired to determine compliance to a reasonable degree of scientific certainty. At a minimum, data must be collected for multiple 10- minute periods on at least two different nights when the nearest turbines are operating at full acoustic emissions. Windscreens will be used to protect microphones and minimize effects from self-generated wind-induced noise.
- c) Measurements shall be conducted at a select number of non-participating and participating residences (where access can be arranged) with the highest expected noise levels based on acoustic modeling and/or at specific residences identified in the Commission's formal request. Typically, 4 to 6 measurement locations total.
- d) Measurements shall be conducted using sound level meters meeting ANSI Type1 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. Analyze those data acquired when the closest 4 Project turbines to each measurement location are operating at full capacity (80% electric power or more, which typically occurs at a hub-height wind speed of 10 m/s or greater).
  - ii. Discard those samples measured when the 10-minute average ground wind speed is 5 m/s or greater and samples measured during periods

with precipitation.

- iii. Remove transient background noise (i.e. occasional traffic, activities of residents, farming activities, and wind gusts) per ANSI S12.9 Part 3.
- iv. Remove continuous background noise by conducting turbine shutdowns, where the background noise is measured directly. Shut down testing will be conducted in a controlled manner and shall continue until enough data has been collected when ground wind speeds are less than 5 m/s (preferably less than 3 m/s) such that a repeatable pattern is observed in the measured background noise level. Applicant's sound test consultant shall be present onsite for a portion of the shutdown tests, as deemed necessary by the consultant and Commission Staff, to observe and listen during the tests. Background noise levels will be subtracted from total noise levels measured during these wind conditions to calculate turbine-only noise levels.
- v. Review of the frequency spectra of potential 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 samples most representative of turbine-only noise).
- f) Compare the resulting turbine-only noise levels to the 45.0-dBA limit. Compliance shall be demonstrated if all samples are less than the limits.
- 28. Shadow flicker at any receptor shall not exceed thirty hours per year.
- 29. At least thirty days prior to the commencement of construction work in the field for the Project, Applicant will file with the Commission 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 compliance with the applicable shadow flicker requirements;
  - d) Applicant shall also demonstrate that in selecting locations for wind turbines, it considered how to reduce impacts on non-participating landowners; and
  - e) Such additional Project preconstruction information as Staff requests.

- 30. 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 5.2 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.
- 31. For purposes of this Project and the commitments herein, "residences/dwellings," "businesses," "structures," "schools," "churches," and "buildings owned and/or maintained by a governmental entity" shall include only those that are in existence and in use as of the date of the Order.
- 32. 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 filed with the Commission to make available to the general public on the Commission's website.
- 33. 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 sheriff of Deuel County, and the Deuel County Offices of Emergency Management.
- 34. 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.
- 35. If the Project is decommissioned, Applicant will follow Section 18 of the Application and the Decommissioning Plan attached as Attachment X to the Application, and Exhibits 1-59(a)(1) and 1-59(a)(2) to Applicant's supplemental response to Staff Data Request 1-59(a). The Commission shall be notified prior to any decommissioning action.
- 36. Applicant shall utilize an Aircraft Detection Lighting System (ADLS), if approved by the Federal Aviation Administration and the Federal Communications Commission.

The Applicant shall take all reasonable steps to ensure the ADLS is operational prior to commercial operation.

- 37. Applicant shall establish a procedure for preventing whooping crane collisions with 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 turbines and/or construction activities within two miles of whooping crane sightings. The South Dakota Game, Fish, and Parks will be consulted on the procedure to minimize impacts to whooping cranes.
- 38. 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 sixty days unless exigent circumstances require action sooner.
- 39. Within thirty days of receiving its Permits, Applicant shall provide a copy of the Commission's Final Decision and Order Granting Permits to Construct Facility; Notice of Entry and attached Permit Conditions in this docket to the affected county, townships, and municipalities in the Project Area.
- 40. At least 60 days prior to commencement of commercial operation, Applicant shall file an escrow agreement with the Commission for Commission approval that provides a decommissioning escrow account. The escrow account agreement shall incorporate the following requirements:
  - a) The escrow account is funded by the turbine owner annually at a rate of \$5,000 per turbine per year for the first thirty years, commencing no later than the commercial operation date.
  - b) Beginning in year ten following commercial operation of the Project and each fifth year thereafter, the turbine 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 the Commission may determine that funds in escrow are sufficient to cover the costs of decommissioning and that reduced or no additional deposits are required. The Commission also may determine that additional finding is required and may require additional funding equal to the estimated amount needed for decommissioning.
  - c) All revenues earned by the account shall remain in the account.
  - d) An account statement shall be provided annually to the Commission and become a public record in this docket.

- e) The escrow account obligations will be those of Applicant and the escrow agreement shall include terms providing that the agreement binds Applicant's successors, transferees, and assigns. A sale of the Project assets shall include the associated Permit that requires Commission approval per SDCL § 49-41B- 29.
- f) The escrow 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 agreement shall be venued in South Dakota.
- To minimize risk that the escrow account would be subject to foreclosure, lien, judgement, or bankruptcy, the escrow agreement will be structured to reflect the following factors:
  - i. That Applicant agreed to the creation of the escrow account;
  - ii. Applicant exercises no (or the least amount possible of) control over the escrow;
  - iii. The initial source of the escrow account;
  - iv. The nature of the funds put into the escrow account;
  - v. The recipient of its remainder (if any);
  - vi. The target of all its benefit; and
  - vii. The purpose and its creation.
- i) Account funds are to be paid to the Project owner at the time of decommissioning, to 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 account is payable to the landowner who owns the land on which associated Project facilities are located as the landowner incurs and pays decommissioning costs.
- 41. If Applicant is purchased by an electric utility which is rate regulated by the Commission, Paragraph 40 of these conditions will not apply. Instead, the purchasing utility will assume financial responsibility 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 the purchasing

utility 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 rate proceedings using the most current information available regarding decommissioning.

- 42. The Project will use two 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 towers, 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 the wind turbine(s) if icing conditions are identified (using referenced 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 damage caused by ice thrown from a turbine.
- 43. Applicant will cooperate with agricultural spray applicators who request for Applicant to temporarily shut down wind turbines as needed to accommodate safe and effective spray operation and application when conditions allow for aerial spraying.
- 44. Applicant shall submit monthly reports to the Commission during construction and shall submit quarterly reports to the Commission prior to the start of construction and from the date of commercial operation until reclamation is complete. Each of these monthly and quarterly reports shall include the following:
  - a) A summary of the work completed to date;
  - b) A summary of the activities to be completed for the project, including installation and operation of ADLS, and an associated timeline;
  - c) A summary of consumer contacts, indicating the issue raised in the contact and the action the Applicant took to address the issue; and
  - d) A permit condition checklist including the status of all required filings to the Commission and any other permitting agency.
- 45. Applicant shall notify Commission of key Project milestones by making the following filings in the docket:
  - a) Report the date construction will commence as soon as it is known, but no later than five business days prior to commencement;
  - b) Report the date construction was completed within five business days of

completion;

- c) Report the Commercial Operation Date; and
- d) Report the date reclamation was completed within five business days of completion.
- 46. Applicant agrees to undertake a minimum of two years of independently-conducted postconstruction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the USFWS, SDGFP, and the Commission.
- 47. Applicant will not construct any turbine location that has received a final determination of hazard. The Project will abide by any conditions as determined by the FAA for turbine locations that have received a final determination of no hazard with conditions.
- 48. Applicant will not construct at turbine locations 39 and 56 unless noise modeling demonstrates that cumulative noise from the Project and Tatanka Ridge is 45 dBA or less at nearby non-participating residence.
- 49. Applicant will provide the Commission with updated contact information for a representative of the Project, including name, phone number, and email address, when and as the same may change.
- 50. Applicant will remove turbine foundations to a depth of not less than 48 inches during decommissioning.
- 51. Applicant will provide landowner/Intervenor Josh Bekaert a construction timeline at least one week prior to the commencement of work on turbine location 75 and additional advanced notice when construction activities on the road adjacent to Mr. Bekaert's property are anticipated to impede access for ten (10) minutes or longer.
- 52. Applicant shall, to the extent feasible, avoid construction activities between the hours of 10:00 p.m. and 7:00 a.m.<sup>79</sup>

<sup>&</sup>lt;sup>79</sup> Commissioner Nelson dissenting as to this condition.