

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

**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**

SD PUC DOCKET EL24-___

**PRE-FILED DIRECT TESTIMONY OF MICHELLE PHILLIPS
ON BEHALF OF DEUEL HARVEST WIND ENERGY SOUTH LLC**

June 28, 2024

1 **I. INTRODUCTION AND QUALIFICATIONS**

2

3 **Q. Please state your name, employer and business address.**

4 A. My name is Michelle Phillips. I am a Manager, Environmental Compliance and
5 Strategy at Invenergy LLC (“Invenergy”). My business address is One South
6 Wacker Drive, Suite 1800, Chicago Illinois, 60606.

7

8 **Q. On whose behalf are you providing this testimony?**

9 A. I am providing this testimony on behalf of Deuel Harvest Wind Energy South LLC
10 (“South Deuel Wind”) in support of its Facility Permit Application (“Application”) to
11 the South Dakota Public Utilities Commission. The Application is for a facility
12 permit to construct and operate a wind energy facility which will have a nameplate
13 capacity of up to 260 megawatts (“MW”) and deliver up to 250 MW to the point of
14 interconnection (“Wind Energy Facility”), and a transmission facility which will
15 operate at 345 kilovolts (“kV”) and be approximately 6 miles in length
16 (“Transmission Facility”). The Wind Energy Facility and the Transmission Facility
17 are collectively referred to as the Project.

18

19 **Q. Briefly describe your educational background and professional experience.**

20 A. I have a Bachelor of Science in environmental science and a minor in business
21 administration from Tuskegee University. I also have a Master of Science in
22 environmental management from the University of Houston Clear Lake. Prior to
23 joining Invenergy, I was an environmental specialist with NextEra Energy
24 Resources. There, I was responsible for advising multidisciplinary teams on
25 permitting strategies to facilitate development of projects including renewable
26 generation (wind and solar), battery storage, transmission, and other projects
27 supporting decarbonization. I joined Invenergy in 2022 as a senior associate on
28 the environmental compliance and strategy team, where I am responsible for
29 developing environmental strategy for siting design, construction and operation of
30 renewable energy facilities including natural resource assessment, risk analysis,

31 permitting, regulatory compliance, and coordination with federal, state, and
32 regional agencies. My resume is attached as **Exhibit 1.**

33

34 **II. PURPOSE OF TESTIMONY**

35

36 **Q. What is your role with respect to the Project?**

37 A. I am responsible for overseeing the wildlife and wetlands survey work and
38 permitting for the Project, as well as other environmental analyses performed for
39 the Project such as land use considerations.

40

41 **Q. What is the purpose of your Direct Testimony?**

42 A. The purpose of my Direct Testimony is to provide information concerning existing
43 environmental conditions in the area of the proposed Project (“Project Area”),
44 potential impacts of the Project on the existing environment, and how the Project
45 will avoid or minimize potential impacts. In addition, I describe the environmental
46 survey work conducted on behalf of South Deuel Wind to analyze the Project Area
47 as well as the associated federal and state agency correspondence and
48 coordination. I also discuss the sections and appendices of the Application that I
49 am sponsoring.

50

51 **Q. Identify the portions of the Application that you are sponsoring for the**
52 **record.**

53 A. I am sponsoring the following portions of the Application:

- 54 • Section 9: Effect on Terrestrial Ecosystems
- 55 • Section 10: Effect on Aquatic Ecosystems
- 56 • Section 11.2: Public Lands and Facilities
- 57 • Section 22.2.1: United States Fish and Wildlife Service and South Dakota
58 Game, Fish, and Parks
- 59 • Section 22.3: Public and Agency Comments
- 60 • Appendix D: Agency Correspondence
- 61 • Appendix E: Wetland Delineation Report

- 62 • Appendix F: 2023 Grassland Assessment
- 63 • Appendix G: 2021-2022 Large Bird Use Report
- 64 • Appendix H: 2023 Raptor Nest Survey
- 65 • Appendix I: 2022 Bat Acoustic Study
- 66 • Appendix J: Northern Long-Eared Bat Habitat Assessment
- 67 • Appendix K: Bird and Bat Conservation Strategy
- 68 • Appendix L: 2023 Protected Butterfly Species Habitat Assessment

69

70 **Q. What exhibits are attached to your Direct Testimony?**

71 A. I am sponsoring the following exhibit:

- 72 • Exhibit 1: Michelle Phillips Resume

73

74 **III. ENVIRONMENTAL SURVEYS/STUDIES**

75

76 **Q. Please describe how the area of analysis for the Project's environmental**
77 **surveys and studies has changed over time.**

78 Development of the Project began in 2015. At this time, the Project area boundary was
79 larger than the current proposed Project Area. Over the past 9 years, South Deuel
80 Wind has performed a thorough suite of various analyses, including environmental
81 studies, to refine the Project and the Project area boundary. As often occurs during
82 the development of a wind energy facility, South Deuel Wind has made
83 adjustments to the Project area boundary since some of the initial environmental
84 analyses were procured. The historical Project area boundaries are shown on
85 Figure 1 of Appendix K to the Application. While the Project area boundary has
86 been adjusted through the years, due to the similar land cover and ecological
87 makeup across the region the results of each survey are consistent with what is
88 expected for the 2024 Project Area.

89

90 **Q. What was the overall approach to environmental analysis of the Project**
91 **Area?**

92 South Deuel Wind conducted or authorized various environmental surveys and studies in
93 and around the Project Area. The purpose of this analysis was to identify the
94 potential for sensitive species and their habitats, wetlands/waterways, and other
95 environmental resources within the Project Area and identify strategies to avoid or
96 minimize impacts to those resources. The surveys address numerous resources
97 and have been conducted to comply with applicable regulations and guidelines,
98 including the United States Fish and Wildlife Service (“USFWS”) Land-Based Wind
99 Energy Guidelines (“WEG”), the USFWS Eagle Conservation Plan Guidance
100 (“ECPG”), and the South Dakota Siting Guidelines for Wind Projects. Survey
101 results have informed Project siting efforts and have been used to develop
102 avoidance or minimization strategies to be implemented in connection with
103 construction and operations. The specific environmental analyses conducted for
104 the Project are described in detail in Sections 9 and 10 of the Application and
105 related appendices.

106

107 **Q. Discuss the wetland surveys and/or studies conducted with respect to the**
108 **Project.**

109 Burns & McDonnell conducted a wetland delineation for the Project to evaluate the
110 presence of wetlands and other water resources, including streams, drainages,
111 and ponds, in compliance with Section 404 of the Clean Water Act and in
112 accordance with the United States Army Corps of Engineers (“USACE”)
113 guidelines. Prior to conducting a field delineation, a desktop review of wetlands
114 and other waters of the United States was conducted for the Project. The review
115 was conducted for the location of Project Facilities, including all proposed turbine
116 locations and the Gen-Tie Line route, and buffers around certain Project Facilities.
117 The field delineation was conducted on the proposed Project Layout, including
118 buffers, as determined by South Deuel Wind. The buffers on Project Facilities
119 included potential turbine locations (500-foot circular buffer), access roads (50-foot
120 buffer on either side of the centerline), and collector circuits (50-foot buffer on

121 either side of the centerline) and the potential locations of other Project Facilities,
122 including laydown yards and the operation and maintenance facility. A total of
123 102.1 acres of wetlands and 7,012 linear feet of stream channels were identified
124 within the area surveyed. See Section 9.2 of the Application for further detail.

125
126 **Q. Did South Deuel Wind conduct a grassland assessment?**

127 Yes. Burns & McDonnell conducted a Grassland Assessment, which is included as
128 Appendix F to the Application. The Grassland Assessment consisted of both a
129 desktop analysis as well as a series of field surveys. There were 244 grassland
130 observation points recorded, and of those 244 points, 138 were determined to be
131 a “low” classification, 73 were determined to be a “medium” classification,
132 and 11 were determined to be a “high” classification. Two observation points
133 were inaccessible from public roads and 20 did not have grassland present and
134 were therefore not given a classification.

135
136 The 11 grassland observation points within the Project Area classified as “high”
137 , allowing the area to be classified as potentially unbroken grassland, totaled 335
138 acres or approximately 1 percent of the Project Area. The potentially broken
139 grasslands, classified as “low” or “medium,” encompassed 4,788 acres, or
140 approximately 14 percent of the Project Area. See Appendix F to the Application
141 for further detail on the methodology and discussion of this assessment.

142
143 **Q. Discuss South Deuel Wind’s evaluation of wildlife in the Project Area.**

144 Numerous wildlife studies were completed for the Project between 2016 and 2023, which
145 are described in Section 9.3 of the Application. These studies helped South Deuel
146 Wind understand wildlife that may be present in the Project Area. Table 9.3.1 in
147 the Application lists the wildlife species that may be present in the Project Area.
148 See Section 9.3 of the Application for further detail on the analyses conducted and
149 potential avoidance and minimization measures.

150

151 **Q. Describe the analysis South Deuel Wind performed regarding avian wildlife.**

152 South Deuel Wind retained Burns & McDonnell to perform several wildlife surveys and
153 analyses in and around the Project Area, including a Large Bird Use Survey
154 (Appendix G), a Raptor Nest Survey (Appendix H), a Bat Acoustic Study (Appendix
155 I), a Bat Habitat Assessment for the Northern Long-Eared Bat (“NLEB”) (Appendix
156 J), and a Protected Butterfly Species Habitat Assessment (Appendix L). These
157 reports and surveys were used to inform siting and routing for the Project.

158

159 **Q. Please summarize these studies.**

160 The Large Bird Use Survey was conducted to assess species composition, identify the
161 temporal and spatial use of large birds within the Project Area; document any
162 threatened, endangered, and other species of concern; and to document eagle
163 observations within the Project Area as defined at the time of survey. These
164 surveys were conducted over three years. During each year, no federally
165 threatened or endangered species were observed during the surveys. Additional
166 information on the Large Bird Use Survey is included in Section 9.3.1.1 of the
167 Application and Appendix G.

168

169 Raptor nest surveys were conducted to identify the location and occupancy status
170 of potential raptor nests within and surrounding the Project Area. These surveys
171 were conducted over a multi-year period and included aerial and ground
172 observation. No federal- or state-threatened or endangered species were
173 documented during these observations. Additional information on the raptor nest
174 surveys is included in Section 9.3.1.2 and Appendix H.

175

176 Acoustic bat surveys were conducted to identify the level and seasonality of bat
177 activity and the genus of bats within the Project Area as defined at the time of
178 survey. The surveys were conducted over a three-year period using frequency
179 detectors with a microphone. Throughout the surveys, no potential *Myotis* or
180 *Perimyotis* calls were identified in any year of survey, indicating the absence of all
181 federal- or state-threatened or endangered, or proposed federally listed bat

182 species with potential to occur in the Project Area. Additional information regarding
183 the acoustic bat surveys is included in Section 9.3.1.3 and Appendix I to the
184 Application.

185
186 A NLEB habitat assessment was conducted to identify areas of potential summer
187 roosting and foraging habitat for the NLEB within the Project Area and a one-mile
188 buffer. Potentially suitable summer roosting habitat was evaluated using desktop
189 and field methods. A total of 14 areas met the desktop criteria for potentially
190 suitable summer roosting habitat, six of which are within the Project Area. The field
191 habitat assessment was conducted between October 10 and October 12, 2022.
192 During the field habitat assessment, the areas identified through the desktop
193 assessment were viewed and photographed from public roads. All 14 areas
194 meeting the desktop criteria for potentially suitable summer roosting habitat were
195 assessed in the field and were determined to be suitable for NLEB. One additional
196 area of approximately 22.3 acres was added based on an expansion of the Project
197 area in 2023. This area has not been evaluated in the field but is assumed to be
198 suitable for the NLEB. Six of the 15 areas, totaling approximately 90 acres,
199 identified as potentially suitable habitat are within the Project Area. Additional
200 information regarding the NLEB habitat assessment is included in Section 9.3.1.3
201 and Appendix J to the Application.

202
203 The studies were also used to develop a Bird and Bat Conservation Strategy,
204 which is attached to the Application as Appendix K. This plan outlines several
205 strategies to minimize the Project's impact on wildlife, including siting turbines
206 outside of native habitat, avoiding permanent impacts to protected lands, USFWS
207 critical habitat, and conservation easements, to the extent practicable, and the
208 installation of collector circuits underground to alleviate the collision or
209 electrocution risk to avian wildlife.

210

211 **Q. Were any studies regarding butterflies conducted?**

212 Yes, Burns & McDonnell conducted a protected butterfly species habitat assessment. The
213 study was developed in coordination with USFWS and evaluated whether there
214 was any habitat potentially suitable for federally-protected butterfly species within
215 the Project Area. The assessment concluded that a low potential exists for these
216 protected species to occur in the Project Area. This assessment is based on
217 historical records of occurrence, presence of grasslands, the location of
218 designated critical habitat relative to the Project Area, and grassland conversions
219 reducing the amount of suitable habitat for both butterfly species, and
220 grazing/haying activities. Additional information is included in Section 9.3.2.1 and
221 Appendix L to the Application.

222

223 **Q. How will South Deuel Wind minimize and mitigate impacts to the**
224 **environment and to wildlife?**

225 The Project facilities have been sited to avoid protected lands, potential habitat, and other
226 environmental resources identified and mapped within the Project Area. For
227 example, no Project Facilities have been sited on USFWS critical habitat or
228 USFWS easements. Likewise, to the extent practicable, Project facilities are sited
229 in upland areas, avoiding low-lying wetlands and streams. South Deuel Wind will
230 also use best management practices to further reduce the Project's environmental
231 impact. Additional mitigative measures are discussed in the Application in several
232 different sections including Sections 7, 8, 9, 10, and 11.

233

234 **IV. AGENCY COORDINATION**

235

236 **Q. Discuss South Deuel Wind's agency coordination efforts.**

237 As discussed in Sections 22.2 and 22.3 of the Application and Appendix D to the
238 Application, throughout Project planning and development, South Deuel Wind has
239 coordinated with various federal, state, and local agencies to identify potential
240 natural and cultural resources in the vicinity of the proposed Project. South Deuel

241 Wind has had multiple meetings and consultations with staff from the USFWS
242 South Dakota Game, Fish, and Parks (“SDGFP”) to discuss the Project.

243
244 South Deuel Wind has been coordinating with the USFWS and SDGFP since 2016
245 as part of the Project development process. South Deuel Wind and the agencies
246 had numerous discussions that included the sharing of public data on sensitive
247 resources, environmental survey methods and results, and the incorporation of
248 survey results into the Project design. South Deuel Wind anticipates that Project
249 coordination will continue.

250
251 **Q. Did South Deuel Wind receive input from the agencies?**
252 Yes. South Deuel Wind considered input and comments from agencies and the public in
253 siting the Project Area and in identifying potential turbine locations. Some of the
254 adjustments made during Project siting and design, in response to comments,
255 included the avoidance of impacts to state lands and federal lands within or near
256 the Project, to the extent practicable, and avoidance or minimization of impacts to
257 unbroken grasslands, wetlands, and other habitats within or near the Project Area.

258
259 **V. CONCLUSION**

260
261 **Q. Does this conclude your testimony?**

262 Yes.

263
264

265 Dated this 28th day of June, 2024

266 *Michelle Phillips*
267 _____

268 Michelle Phillips