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

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

June 28, 2024

I. INTRODUCTION AND QUALIFICATIONS

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

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

Q. On whose behalf are you providing this testimony?

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

Q. Briefly describe your educational background and professional experience.

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

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

II. PURPOSE OF TESTIMONY

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

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

Q. What is the purpose of your Direct Testimony?

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

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

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

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

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

Q. What exhibits are attached to your Direct Testimony?

A. I am sponsoring the following exhibit:

- Exhibit 1: Michelle Phillips Resume

III. ENVIRONMENTAL SURVEYS/STUDIES

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

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

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

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

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

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

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

Q. Did South Deuel Wind conduct a grassland assessment?

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

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

Q. Discuss South Deuel Wind's evaluation of wildlife in the Project Area.

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

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

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

Q. Please summarize these studies.

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

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

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

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

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

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

Q. Were any studies regarding butterflies conducted?

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

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

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

IV. AGENCY COORDINATION

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

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

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

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

Q. Did South Deuel Wind receive input from the agencies?

Yes. South Deuel Wind considered input and comments from agencies and the public in siting the Project Area and in identifying potential turbine locations. Some of the adjustments made during Project siting and design, in response to comments, included the avoidance of impacts to state lands and federal lands within or near the Project, to the extent practicable, and avoidance or minimization of impacts to unbroken grasslands, wetlands, and other habitats within or near the Project Area.

V. CONCLUSION

Q. Does this conclude your testimony?

Yes.

Dated this 28th day of June, 2024

Michelle Phillips

Michelle Phillips