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 MONICA MONTERROSA 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 Monica Monterrosa. I am a Director, Renewable Development at Invenergy LLC ("Invenergy"). My business address is 1401 17th Street, Suite 1100, Denver, CO. 80202.

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 been involved in renewable energy development for nearly 15 years. I received my law degree from Universidad Católica de Colombia. Prior to joining Invenergy, I worked for Renewable Energy Systems Americas in Colorado between 2009 and 2019. There, I was responsible for analyzing and interpreting Latin American Energy regulations and establishing procedures and requirements for the development and construction of renewable energy projects in different Latin-American countries as well as supporting construction contracts for the company. I then took a position with Renewable Energy Systems Chile where I was involved in the development of wind energy projects, then transitioned to a manager role with Renewable Energy Systems to develop wind and solar energy projects in the United States. I joined Invenergy in 2019 as a Director of International Development in Colombia where I led the Colombia development

team on wind and solar project development. I assumed my current role in 2022 where I lead a team in developing and permitting renewable energy projects in Minnesota, North and South Dakota. My resume is attached as **Exhibit 1**.

Q. What is the relationship between South Deuel Wind and Invenergy with respect to the Project?

A. South Deuel Wind is an affiliate of Invenergy, and Invenergy is assisting with development of the Project.

Q. Briefly describe Invenergy's experience in the renewable energy industry.

A. As a privately held company with a 20+ year track record of responsibly developing, building, owning and operating wind, solar, energy storage, and natural gas generation facilities, Invenergy has developed more than 200 projects and 32 gigawatts of generating capacity in the Americas, Europe, and Asia. Invenergy is also developing transmission projects to build a more robust, resilient grid. Invenergy approaches operations with an owner's mindset by maintaining projects in top working condition to ensure optimal performance. Invenergy's comprehensive service capabilities are supported by dedicated staff continuously monitoring and improving the performance of the fleet.

II. PURPOSE OF TESTIMONY

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

A. I am responsible for managing the overall development of the Project.

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to provide a brief overview of the Project's development history, including Project site selection, site analysis, and layout and facility design. I also provide testimony regarding Project operational considerations and analysis of the Project's potential effect on the physical

environment and cultural resources, and introduce the other witnesses who will testify on behalf of South Deuel Wind.

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 2: Purpose of, and Demand for, the Facility
- Section 3: Estimated Cost of the Facility
- Section 5: Alternative Sites and Siting Criteria
- Section 7: Effect on Physical Environment
- Section 8: Effect on Hydrology
- Section 11.1: Land Use
- Section 11.4: Visual Resources
- Section 13: Water Quality
- Section 14: Air Quality
- Section 12: Local Land Use Controls
- Section 15: Community Impact
- Section 16: Employment Estimates
- Section 17: Future Additions and Modifications
- Section 18: Decommissioning of Wind Energy Facilities
- Section 22.2.2 South Dakota State Historic Preservation Office
- Section 22.2.3 Deuel County
- Appendix A: Figures
- Appendix B: Conditional Use Permit, Associated Findings, and Wind Energy System Zoning Ordinance
- Appendix U: Level III Intensive Archaeological Resources Survey (Confidential)
- Appendix V: Historic-Age Resource Survey (Confidential)
- Appendix W: Unanticipated Discovery Plan
- Appendix X: Decommissioning Plan

Q. What exhibits are attached to your Direct Testimony?

A. I am sponsoring the following exhibit:

- **Exhibit 1**: Monica Monterrosa Resume

Q. What other witnesses are testifying on behalf of South Deuel Wind?

A. The following witnesses will provide direct testimony in this case:

- Mr. Aidan O'Connor, Manager, Renewable Development, Invenergy, will testify regarding wind energy facility and transmission facility information, and is sponsoring Application Sections 1, 20, 21, 22.1, and 22.4.
- Ms. Michelle Phillips, Manager, Environmental Compliance and Strategy, Invenergy, will testify regarding environmental review conducted for the Project and is sponsoring Application Sections 9, 10, 11.2, 22.2.1, 22.3, and Appendices D, E, F, G, H, I, J, K, and L.
- Ms. Alexandra Thompson, Senior Project Engineer, Invenergy, will testify regarding design and engineering considerations for the Project, and is sponsoring Application Sections 4, 6, 11.6, 19, and Appendices O, P, Q, R, and S.
- Mr. Michael Hankard, President and Principal, Hankard Environmental, Inc, will testify regarding noise impact and mitigation of the Project and is sponsoring Application Section 11.3 and Appendix M.
- Ms. JoAnne Blank, Senior Scientist and Project Manager, Stantec Consulting Services Inc, will testify regarding shadow flicker impact and mitigation of the Project and is sponsoring Application Section 11.5 and Appendix N.
- Mr. David Loomis, Emeritus Professor of Economics, Illinois State University, and President, Strategic Economic Research, LLC, will testify regarding the anticipated economic impact of the Project and is sponsoring Application Appendix C.
- Mr. Michael MaRous, Owner and President, MaRous & Company, will testify regarding the market impact of the Project and is sponsoring Application Appendix T.

III. PROJECT OVERVIEW

Q. Who will own and operate the Project?

A. South Deuel Wind may directly or indirectly through its affiliates own, construct, and operate the Project. Alternatively, South Deuel Wind may sell or assign the Project, or a portion thereof, to one or more public utilities or other qualified entity or entities at any time. Any future buyer or assignee will be required to meet all permit conditions and any power purchase agreement obligations associated with the Project or portion thereof. As part of any such sale or assignment, South Deuel Wind or an affiliate may function as the engineering, procurement, and construction contractor to construct the Project and/or function as the operations and maintenance services provider to operate and maintain the Project.

Q. Briefly describe the Project, including where it is located.

A. The Project includes a wind energy facility that will have a nameplate capacity of up to 260 MW and deliver up to 250 MW to the point of interconnection. The wind energy facility will include up to 68 wind turbines. The Project also includes an associated transmission facility, which will operate at 345 kV and be approximately 6 miles in length. The Project is located in the townships of Blom, Brandt, Clear Lake, Norden, and Scandinavia in Deuel County, South Dakota. Ms. Alexandra Thompson provides additional information related to the Project and its facilities in her Direct Testimony.

Q. How was the location of the Project initially identified?

A. South Deuel Wind selected the state of South Dakota to develop the Project because of its robust wind resource, transmission infrastructure, residents and landowners who value diversifying their farm revenue, and business-friendly regulations and programs. Moreover, South Deuel Wind selected Deuel County based on its strong wind resource, access to transmission infrastructure, the compatibility of a wind project with existing land uses, strong landowner interest and community support, and the successful development and operation of the

Deuel Harvest Wind Farm. These characteristics allow for the development of a successful wind project.

Q. Describe the steps South Deuel Wind took to evaluate natural resources within the Project Area.

A. As described in more detailed in the Application and supported by the testimony of South Deuel Wind witness Ms. Michelle Phillips, throughout the Project planning and development process, South Deuel Wind has coordinated with various federal, state, and local agencies to identify potential natural resources in the vicinity of the proposed Project. South Deuel Wind has had numerous meetings and consultations with staff from the United States Fish and Wildlife Service ("USFWS"), South Dakota Game, Fish and Parks ("SDGFP"), and South Dakota State Historical Society from 2016 to present to discuss the Project. South Deuel Wind is following the Land-Based Wind Energy Guidelines (USFWS 2021), Eagle Conservation Plan Guidance (USFWS 2013), and United States Army Corps of Engineers ("USACE") Guidelines, in addition to consultations with USFWS and SDGFP staff. Furthermore, South Deuel Wind commenced numerous studies to evaluate the impact of the Project on natural resources, as discussed in the Application.

Q. Has South Deuel Wind also consulted with the South Dakota State Historic Preservation Office ("SHPO") regarding cultural resources?

A. Yes. As discussed in Section 22.2.2 of the Application, SHPO consultation was conducted outside of Section 106 of the National Historic Preservation Act of 1966, and South Deuel Wind has had multiple meetings with SHPO staff regarding the Project. Consistent with this consultation, a Level III Archaeological Survey and a Historic Architectural Resources Reconnaissance Survey were conducted for the Project by South Deuel Wind. These surveys are included as Application Appendices U and V. For any cultural resources identified during the surveys, a recommendation of National Register of Historic Places ("NRHP")-eligibility of the resource has been made. Sites determined to be NRHP-eligible will be avoided by

the Project. If a site cannot be avoided, South Deuel Wind will work with SHPO to develop appropriate minimization or mitigation measures. South Deuel Wind also developed an Unanticipated Discovery Plan (Appendix W) which provides procedures to follow to address any unanticipated discoveries of cultural resources during Project construction, including previously undiscovered archaeological sites and possible human remains.

Q. What steps will South Deuel take to avoid, minimize, and/or mitigate impacts to cultural resources?

A. Known sites or historic architectural resources determined to be NRHP-eligible are avoided by Project Facilities.

Q. Has the Project identified an off-taker for the energy it will produce?

A. No, not at this time. The Project is being actively marketed to potential off-takers, including public utilities serving South Dakota customers and commercial industrial companies.

IV. PROJECT NEED AND BENEFITS

Q. Briefly describe the need for the Project.

A. The purpose of the Project is to generate electricity to supply the needs of entities that have an interest in procuring renewable energy. As discussed in Section 2.1 of the Application, the demand for renewable energy has significantly increased over recent years as aging coal and nuclear facilities are being retired for regulatory and financial reasons. In addition to national resource planning trends, the Midcontinent Independent System Operator, Inc. ("MISO") regional transmission system has specifically been identified as an area with "immediate need for generation investment" as fossil fuel capacity is retired. South Dakota has some of the nation's greatest wind resources, corroborated by the 55 percent in-state net generation rate provided by wind energy. The Project site in particular boasts an abundance of wind resources, enabling significant energy production

with no fuel costs. Electricity generated by the Project can be sold at more competitive prices compared to other forms of energy projects that rely on purchasing fuel for generation. This translates to cost-effective electricity for power purchasers and energy customers within the MISO service territory. Once online, the Project will deliver up to 250 MW of electrical capacity to the MISO regional transmission system, which will be distributed and used to service electrical demand in the MISO service territory.

Q. Describe some of the benefits of the Project.

A. By supplying zero-emission electricity to the grid, the Project will offer both environmental benefits and price stability. The Project will also provide numerous local and regional economic benefits. These include payments to landowners, increased local tax revenue, and job opportunities during both the short-term construction and the long-term operational phases of the Project. Additional information regarding Project benefits is included in Section 2.1.3 of the Application. South Deuel Wind is also directly engaged in the local community. For example, Invenergy has consistently donated $30,000 annually to the Invenergy Deuel School Scholarship Fund in 2021-2024, totaling $120,000 to date. South Deuel Wind will continue to engage with the Deuel County community throughout construction and operation of the Project and will donate an additional $25,000 annually during the operation of the Project.

V. PROJECT COST

Q. What is the estimated cost of the Project?

A. The current estimated capital cost of the Project is approximately $621 million based on indicative construction and wind turbine pricing cost estimates. This estimate includes lease acquisition, permitting, engineering, financing, procurement, and construction of the Project Facilities.

VI. ALTERNATIVES

Q. Discuss South Deuel Wind's evaluation of alternative site configurations?

A. The Project Layout includes 73 proposed turbine locations, of which at most 68 will be constructed. The Project Layout reflects an optimal configuration for a competitive Project within the Project Area, while avoiding or minimizing impacts to residences, cultural resources, wetlands, waterways, grasslands, and sensitive species and their habitats. Additional discussion is included in Section 5 of the Application.

Q. Why is the Project proposing alternate turbine locations?

A. Alternate turbine locations are proposed to provide optionality during final micro-siting and design of the Project. Alternate turbine locations help prevent unforeseen findings from reducing the size of the Project or from significantly injuring the productivity of the Project. In all cases, the final turbine locations constructed will be located on leased land, specified noise and shadow flicker thresholds will not be exceeded, County siting standards will be complied with, cultural resource impacts and documented habitats for listed species will be avoided, and wetland impacts will be avoided or in compliance with applicable USACE regulations.

VII. LOCAL LAND USE, COMMUNITY IMPACTS, AND EMPLOYMENT

Q. Describe the existing land use in the Project Area.

A. Land use within the Project Area is predominantly agricultural, with land cover consisting of a mix of cultivated crops and herbaceous vegetation. The remaining land cover in the Project Area consists of grasslands, emergent herbaceous wetlands; developed land, open space; hay/pastureland; open water; deciduous forest; developed, low intensity; developed, medium intensity; mixed forest; woody wetlands; developed, high intensity; and shrub/scrub vegetation.

Q. Is the Project compatible with existing land uses and future development in and around the Project Area?

A. Yes. In 2023, South Deuel Wind received a Conditional Use Permit ("CUP") for the Project from Deuel County. Deuel County's granting of the CUP demonstrates that the Project will not threaten the social and economic condition of inhabitants or expected inhabitants in the siting area. Additionally, the CUP also demonstrates that the Project will not unduly interfere with the orderly development of the region Moreover, the Project is compatible with existing land uses, which are primarily agricultural. Wind energy facilities are particularly compatible with agricultural land because crops can be grown, and livestock can graze, up to the turbines.

Q. Will the Project alter local land use?

A. Construction of the Project will result in conversion of a small portion of the land within the Project Area. Approximately 1,058 acres of temporary ground disturbance impact is expected during construction of the Project, approximately 51 acres of which will be long-term for the operational life of the Project (approximately 0.1 percent of the total land within the Project Area) to host aboveground Project Facilities. Following completion of construction, all temporary construction workspaces will be cleaned up and restored to pre-construction conditions pursuant to the lease and easement agreements, which primarily consist of cultivated croplands and pastureland/grassland.

Q. Is South Deuel Wind working with local Deuel County personnel regarding additional Project approvals?

A. Yes. South Deuel Wind has consulted with Deuel County representatives through meetings, phone calls, and electronic communications, including the application and receipt of a CUP from the County. In addition, South Deuel Wind is working with Deuel County personnel to enter into an agreement for road use and restoration of haul roads. The agreement provides for pre- and post-use inspections of county roads, as well as repair and payment mechanisms. South

Deuel Wind also anticipates working with the County to obtain an overweight and oversize permit for use in hauling equipment and Project components.

VIII. FUTURE ADDITIONS

Q. Does South Deuel Wind anticipate future additions and modifications to the Project?

A. Apart from the final micro-siting flexibility requested in Section 4.2 of the Application, South Deuel Wind does not currently have any plans for future additions to or modifications of the Project.

IX. DECOMMISSIONING

Q. What is the estimated life of the Project?

A. South Deuel Wind anticipates that the operational life of the Project will be approximately 30 years. At the end of commercial operation, South Deuel Wind will assess whether to decommission the Project or seek to extend the life of the Project. Subject to applicable regulatory approval, should South Deuel Wind decide to pursue continued operations, it will evaluate whether to continue with the existing equipment or to upgrade the facility with newer technologies.

Q. If the Project is decommissioned, will the Project comply with all applicable state and local requirements for structure removal and site restoration?

A. Yes. Decommissioning will comply with applicable state and local requirements, including any Deuel County requirements. South Deuel will be responsible for covering all anticipated decommissioning costs. Within 120 days of completion of construction, South Deuel will submit to the County a Decommissioning Plan describing the manner in which South Deuel anticipates decommissioning the Project in accordance with the requirements set forth in Section 1215.09(b) of the Deuel County Zoning Ordinance.

Q. Does South Deuel Wind have any recommendations as to financial assurances for the Project's decommissioning costs?

A. Yes. South Deuel Wind respectfully requests that the Commission authorize South Deuel Wind to post a bond for financial assurance for decommissioning costs in lieu of an escrow. While the Commission has typically required an escrow account for financial assurance for decommissioning costs, the Commission recently approved bonds for wind energy facilities in 2021 and 2022 during those projects' ten-year review.[1] We believe that these recent decisions support the use of a bond for security for the Project.

Q. Will South Deuel Wind obtain an indemnity bond with the County for road use as it concerns construction of the Transmission Facility?

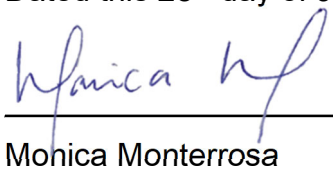
A. Yes. Pursuant to SDCL 49-41B-38, South Deuel Wind will furnish an indemnity bond to secure the restoration and repair of roads after construction of the Transmission Facility.

X. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

Dated this 28th day of June, 2024



Monica Monterrosa

[1] *See In the Matter of the Application by PrairieWinds SD1, Inc., A Subsidiary of Basin Electric Power Cooperative, for a Wind Energy Facility Permit for the PrairieWinds SD1 Wind Farm and Associated Facilities,* Docket No. EL09-028*; In the Matter of the Application by Buffalo Ridge II LLC a subsidiary of Iberdrola Renewables, Inc., for an Energy Conversion Facility Permit for the Construction of the Buffalo Ridge II Wind Farm and Associated Collection Substation and Electric Interconnection System,* Docket No. EL08-031.