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 34 5KV TRANSMISSION FACILITY IN DEUEL COUNTY, SOUTH DAKOTA FOR THE SOUTH DEUEL WIND PROJECT

SD PUC DOCKET EL24-___

PRE-FILED DIRECT TESTIMONY OF ALEXANDRA THOMPSON 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 Alexandra Thompson. I am a Senior Project Engineer 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 obtained a Bachelor of Science in Mechanical Engineering from Cornell University. Prior to joining Invenergy, I was an Instrument Reliability Engineer with Philadelphia Energy Solutions and then a Project Engineer with PBF Delaware City Refining Complex. In those roles, I provided instrument engineering support, including maintenance and installation of process controls and safety systems for large-scale oil refining complexes. I joined Invenergy in 2021 as a Senior Staff Engineer, where I manage the design of utility-scale wind energy facilities. This includes designing turbine layouts, managing pre-construction due diligence, and building energy models used to estimate annualized energy production. 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 engineering related to the Project, Project siting and design, and procuring studies and analyses related to the performance 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, discuss some engineering analysis as it relates to Project design, and address the electrical characteristics of the Project.

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

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

- Section 4: General Site and Facility Descriptions
- Section 6: Environmental Information
- Section 11.6: Electromagnetic Interference
- Section 19: Reliability and Safety
- Appendix O: Microwave Study
- Appendix P: AM and FM Radio Report
- Appendix Q: Communication Tower Study
- Appendix R: Radar and Navigational Aid Screening Study
- Appendix S: Obstruction Evaluation & Airspace Analysis

Q. What exhibits are attached to your Direct Testimony?

A. I am sponsoring the following exhibit:

- Exhibit 1: Alexandra Thompson Resume

III. PROJECT AND SITE OVERVIEW

Q. 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 Project is located in the townships of Blom, Brandt, Clear Lake, Norden, and Scandinavia in Deuel County, South Dakota. The Project will be located on privately-owned land within the 34,339-acre general Project Area ("Project Area"), of which 29,258 acres are leased for the Project. The Project will include the following facilities ("Project Facilities"):

- Up to 68 wind turbines;
- Electrical collection and supervisory control and data acquisition ("SCADA") systems;
- A 34.5 kV to 345 kV collector substation ("Collector Substation");
- An approximately 6-mile long 345 kV generator transmission tie line ("Gen-Tie Line");
- Improvements to enable the interconnection of the Project into the existing 345 kV Astoria interconnection switchyard ("Interconnection Switchyard");
- An operations and maintenance facility ("O&M Facility");
- Access roads;
- Up to three meteorological ("MET") towers;
- An aircraft detection lighting system ("ADLS"); and
- Temporary construction areas, including crane paths, public road improvements, a general construction laydown yard, staging areas, and a concrete batch plant, as needed.

Q. How and where will the Project interconnect to the electric grid?

A. The existing Astoria 345 kV Interconnection Switchyard located within the Project Area will provide direct access to the Midcontinent Independent Transmission System Operator, Inc. ("MISO") regional transmission system, minimizing the interconnection infrastructure required to interconnect the Project. Based on the

Project's property rights, the approximately 6-mile-long proposed Gen-Tie Line route is the most direct and feasible path between the Collector Substation and the Interconnection Switchyard.

Q. What is the proposed construction schedule for the Project?

A. Construction of the Project is planned to begin in summer 2025 and be completed by the end of 2026, pending successful completion of permitting, agency approvals, and other development and pre-construction activities. A preliminary construction schedule is included as Table 4.4.1 in the Application and is included below:

Table 4.4.1 Preliminary Construction Schedule

Activity	Start	End
Start of Construction	September 2025	
Site Preparation	September 2025	November 2025
Access Roads	September 2025	December 2025
Turbine Foundations	October 2025	May 2026
Electrical Collection System	March 2026	October 2026
Turbine Deliveries	April 2026	July 2026
Turbine Installation	May 2026	August 2026
Turbine Wiring	May 2026	September 2026
Mechanical Completion	June 2026	October 2026
Backfeed	July 2026	
Commissioning	August 2026	November 2026
Substantial Completion	November 2026	November 2026
Commercial Operations	December 2026	

Q. How will South Deuel Wind avoid or minimize potential impacts to geologic and soil resources?

A. The Project will avoid/minimize potential impacts to geologic resources by primarily limiting excavation to the upper 10 feet of earth. Due to the limited developed or potential economic mineral resources within the Project Area, the construction and operation of the Project poses no impact to economic mineral resources. With respect to soil resources, the minimum amount of soil required to construct the Project will be removed in the areas associated with Project Facilities. The Project Layout has been designed to limit construction cut and fill work and limit construction in steep slope areas. South Deuel Wind will also develop and

implement a Storm Water Pollution Prevention Plan ("SWPPP") in accordance with South Dakota Department of Environmental and Natural Resources ("SDDENR") storm water permitting requirements, which will include the implementation of best management practices to control erosion, sedimentation, and storm water runoff.

Q. Are significant impacts to hydrological resources anticipated?

A. No. The construction of Project Facilities will likely require groundwater dewatering. Any dewatering will be temporary and minimized to the extent practicable. Dewatering will be conducted in accordance with the General Permit for Temporary Discharge Activities and the Temporary Permit to Use Public Waters from the SDDENR. Routine operation and maintenance activities are not expected to affect groundwater resources. Project Facilities have been designed to minimize impacts on surface water resources.

IV. PROJECT FACILITIES

Q. Describe the foundations that will be constructed for the turbines.

A. South Deuel Wind plans to use a spread footing foundation design for the turbines. Foundation size will vary based on turbine model and will have a depth of up to 12 feet. Except for approximately 12 inches that will remain aboveground to allow turbine towers to be bolted to the foundations, the foundations will be underground. Turbine foundations will be constructed from concrete and rebar to support the turbine structures. The final foundation designs will be engineered for the specific turbine model, soils, and subsurface conditions at each turbine location and stamped by a registered professional engineer.

Q. Describe the turbine towers.

A. Turbine towers will be self-supporting, tubular steel towers connected to turbine foundations by anchor bolts. The towers will be painted a non-glare white, off-white, or gray to comply with Federal Aviation Administration ("FAA") regulations. Access to the turbines will be through a lockable steel door at the base of each

tower. Within the tower, access to the nacelle will be provided by a ladder connecting platforms and equipped with a fall-arresting safety system. Each turbine structure is estimated to have a 25-foot radius long-term ground disturbance impact. In total, 3.3 acres of long-term ground disturbance impact is anticipated to site turbine structures.

Q. Please describe the other parts of the wind turbine.

A. The turbine also includes nacelles, hubs, rotor blades and turbine transformers. Each is described below:

Nacelles: Turbine nacelles will house the main mechanical components that transform the wind's kinetic energy into electricity. The nacelle will be connected to the tower by a yaw system. Motors power rotation of the yaw drive assembly which consists of a machine base frame mounted on a roller or sliding bearing that's attached to the tower via a bolted yaw ring. The rotation of the yaw drive allows for the turbine to be oriented into the direction of the wind to maximize energy production.

The main components inside the nacelles are the main shaft, gearbox, and generator. Mechanical and/or ultrasonic anemometers and weathervanes will be externally mounted at the rear of the nacelle to provide real-time wind speed and direction data to the controller. Based on the data collected, the turbine yaw system constantly rotates the nacelle, hub, and blades into the wind, while the blade pitch system continuously adjusts the pitch of the blades to optimize the output of the generator based on wind speeds. The gearbox adjusts shaft speed to maintain generator speed in low and high wind speeds.

Turbine Hubs: Turbine hubs will connect the three rotor blades to the main shaft. The hubs will be mounted directly to the main shaft and house three electrically actuated hydraulic blade pitch systems. In addition to optimizing the output of the generator, the pitch systems act as the main braking system for the turbines.

Braking under normal operating conditions will be accomplished by pitching the blades perpendicular to the wind. The turbine control system will automatically adjust the pitch of the blades and brake as necessary in high wind conditions. A back-up power system ensures the blades can be pitched to brake in the event of grid loss. The control system will also alert the turbine when the wind is strong enough to begin turning the generator and producing electricity at the "cut-in" wind speed. The turbines will also be equipped with a mechanical brake located at the output shaft of the gearbox to stop the hubs rotation in the event of a storm, fault, or maintenance.

Turbine Rotor Blades: Turbine rotor blades will be connected to the hub and capture kinetic energy from the wind. The rotor blades will be non-metallic and equipped with a sophisticated lightning protection system designed to conduct lighting from the receptors at the tip of each blade, down through the blade, hub, tower, and then finally dissipated via the earthing insulation system incorporated into the foundation.

Turbine Transformers: Electricity produced by the generators will be routed through insulated cables in the power rail to a safety switch then to a transformer which will increase the voltage to 34.5 kV. The transformer may be located internally to the turbine towers or externally at the base of the towers. External transformers will require a small, concrete slab foundation within the gravel area at the turbine base for support. The exact dimensions of the transformers and concrete slab will depend on transformer manufacturer specifications and site-specific engineering requirements. After the voltage of the electricity is increased to 34.5 kV, it will be fed into the electrical collection system.

Q. Describe the electrical collection and SCADA systems.

A. Electricity will be routed from the turbine transformers to the Collector Substation through an electrical collection system that aggregates the electricity of groups of turbines. The electrical collection system will be comprised of underground collector circuits and aboveground junction boxes as required for connections or

splices. The electrical collection system will be designed for operation at 34.5 kV and terminate at the Collector Substation. Approximately 56.5 miles of underground collector circuits will be installed, depending on the final Project Layout. Aboveground junction boxes, including a grave pad and bollards, will be up to 20 by 15 feet. In total, 0.35 acre of long-term ground disturbance impact is estimated to site aboveground junction boxes associated with the electrical collection system. The Project will be monitored by a SCADA system that will provide telemetry, control, and communication among the turbines, Collector Substation, Gen-Tie Line, O&M building, ADLS, and transmission system enabling the Project to be monitored in real time by technicians as well as staff at a 24/7 off-site operations facility. The SCADA system will utilize fiber optic cables that will primarily be installed concurrently with the electrical collection system.

Q. Describe the Collector Substation.

A. The Collector Substation will increase the voltage from the electrical collection system to that of the transmission system at the point of interconnection (345 kV). The Collector Substation will include two main power transformers, a transformer containment area, control enclosure, overhead bus and associated structures, circuit breakers, disconnect switches, relay panels, surge arresters, battery banks, grounding system, and relaying, metering, and communication equipment. Fencing around the Collector Substation will likely be a chain link design 7 feet high topped with 1 foot of barbed wire to comply with the National Electric Safety Code. The Collector Substation is estimated to have 3 acres of long-term ground disturbance impact.

Q. Describe the Gen-Tie Line.

A. The Gen-Tie Line will transmit electricity approximately 6 miles from the Collector Substation to the point of interconnection at the Interconnection Switchyard. The Gen-Tie Line will be an overhead 345 kV transmission line of a three-phase, single-circuit, monopole design. The conductor will be sized to carry the electricity of the Project, and to meet any thermal stability, vibration resistance, or other specific

technical criteria required. Fiber optic cable will run the length of the Gen-Tie Line for communications. The Gen-Tie Line will require a 150-foot-wide right-of-way ("ROW"). Tangent transmission structures will be approximately 80 to 135 feet tall and turning and dead-end transmission structures will be approximately 90 to 150 feet tall. The transmission structures will likely be made of weathered steel. Transmission structures will be placed approximately 900 feet apart with conductors approximately 25 to 30 feet above ground level, meeting applicable National Electric Safety Code requirements. Transmission structures will utilize a delta or vertical cross-arm configuration. Transmission structures will either be secured using concrete foundations or directly embedded and backfilled with crushed rock or native soils. Transmission structures that are considered medium angle, heavy angle, or dead-end structures will have concrete foundations. Tangent and light angle structures may be placed on poured concrete foundations or directly embedded. Each directly embedded transmission structure will have approximately 30 to 40 square feet of long-term ground disturbance impact. Each concrete foundation for a transmission structure will have approximately 50 to 110 square feet of long-term ground disturbance impact. In total, the Gen-Tie Line transmission structures are estimated to have less than 0.1 acre of long-term ground disturbance impact.

Q. Describe the interconnection switchyard.

A. The existing Astoria 345 kV Interconnection Switchyard owned by Otter Tail Power Company will serve as point of interconnection between the Project and the MISO regional transmission system. South Deuel Wind anticipates executing a Generator Interconnection Agreement with Otter Tail Power Company and MISO in the second half of 2024. The extent of physical work to be completed by South Deuel Wind to accommodate the interconnection of the Project will be determined at GIA execution.

Q. Describe MET towers.

A. Up to three MET towers may be installed to acquire wind data to confirm turbine performance. The MET towers will be self-supporting with heights not to exceed the hub height of the turbines. MET towers will be marked and lit as specified by the FAA. Final MET tower locations will depend on the final location of the turbines and specifications of the turbine manufacturer and financing parties. In total, less than 0.1 acre of long-term ground disturbance impact is estimated to site MET towers.

Q. Describe the ADLS towers.

A. The Project will comply with FAA marking and lighting standards to promote aviation safety. Turbine nacelles will be equipped with red lights to provide nighttime visibility to pilots. If approved by the FAA, an ADLS will be installed to minimize illumination time of the lights. An ADLS is an automated radar-based system that monitors airspace and activates lighting when an aircraft is detected at or below 1,000 feet above turbine tip height and approaching within 3 miles of a turbine location. When an aircraft exits the detection zone, the ADLS will turn the lights off. South Deuel Wind will work with the FAA to seek to implement an ADLS that is compliant with SDCL 49-41B-25.2

ADLS towers are up to 200 feet tall and are equipped with a Doppler X-band radar mounted to the top of the tower. The size of the tower and its foundation design will depend on the tower location and proximal topography. An outdoor cabinet containing ADLS equipment will be located at the base of the tower. The ADLS will be powered by the nearest turbine or local distribution line; a generator may be installed for back-up power. If the system is shut down due to an event such as a power outage, turbine lighting will switch to default operational mode, which involves regular lighting per FAA requirements. Equipment at the base of the ADLS towers will be enclosed by fencing, with a footprint of approximately 25 by 35 feet. In total, less than 0.1 acres of long-term ground disturbance impact is estimated to

site two ADLS towers. A preliminary ADLS location is provided in Figure 2 in Appendix A.

Q. Describe the O&M Facility.

A. The O&M Facility will include an O&M building, parking lot, storage area, and other associated facilities such as a drinking water well, aboveground water storage tanks, septic system, security gate, security system, lighting, and signage. The O&M building will house administrative and maintenance equipment and personnel. The O&M building will be the main working base for the Project's technicians and house the Project's control system hardware that provides real time data to technicians and staff at a 24/7 off-site operations facility. The O&M building will have workstations for the technicians to use to organize their days in the field, and a garage with tools and an inventory of parts and maintenance supplies. Fencing around the O&M storage area will likely be a chain link design 7 feet high topped with 1 foot of barbed wire. Security cameras will be installed at the O&M building. Doors to the O&M building and gates to the O&M storage area will be secured using a key control or badge reader system. The O&M Facility is estimated to have 2.5 acres of long-term ground disturbance impact.

V. TURBINE SELECTION

Q. Has South Deuel Wind made a final turbine model selection for the Project?

A. South Deuel Wind requires the flexibility to select the final turbine model prior to construction to remain competitive in the current marketplace during turbine procurement. South Deuel Wind has three potential turbine models that it is considering. These are: General Electric 3.8-154; Siemens Gamesa 4.4-164; and Vestas 163-4.5. These are not exhaustive of all potential turbine models that may be used for the Project. The turbine models and specifications are provided in Table 4.2.1 in the Application and provided below. South Deuel Wind respectfully requests that the Permit allow for the use of turbine models of comparable capacity

and specifications, provided County siting standards are complied with and the conditions specified in the Permit can be complied with.

Table 4.2.1 Turbine Models and Specifications							
Turbine Model	Nameplate Capacity (MW)	Hub Height		Rotor Diameter		Tip Height	
		Feet	Meters	Feet	Meters	Feet	Meters
General Electric 3.8-154	3.8	322	98	505	154	574	175
Siemens Gamesa 4.4-164	4.4	320	97.5	538	164	589	180
Vestas 163-4.5	4.5	322	98	535	163	589	180

VI. PROJECT CONFIGURATION

Q. Is the Project's proposed configuration depicted in Figure 2 of Appendix A to the Application?

A. Yes. Figure 2 of Appendix A to the Application contains the representative Project Layout and includes proposed locations of the Project Facilities.

Q. Is the Project sited so as to minimize potential environmental impacts?

A. Yes. As discussed in the Direct Testimony of Michelle Phillips and in the Application, the Project is compatible with existing wildlife use of the area and avoids or minimizes impacts to sensitive species and their habitats. South Deuel Wind has also designed the Project to minimize impacts to other environmental resources, including wetlands, grasslands, water and subsurface geology, and cultural resources, as well as to avoid any federal lands.

Q. Is the Project sited so as to minimize its footprint?

A. Yes. South Deuel Wind has designed and will construct the Project so as to minimize the amount of land that is impacted by the Project. The Project Layout reflects an optimal configuration for a Project within the Project Area, while demonstrating South Deuel Wind's efforts to minimize the footprint of the Project. Compared to earlier wind energy facilities with smaller nameplate turbines, South

Deuel Wind presents an opportunity to minimize the footprint on the land while generating even more energy and economic benefits.

Q. Is the Project configuration designed to comply with all applicable county and state setback requirements?

A. Yes. The Project will meet or exceed setbacks, conditions, and siting standards required by State and local governing bodies. Discussion of these setbacks is included in Section 5.2 and Table 5.2 of the Application.

Q. Where is the Project at with respect to micro-siting the turbines?

A. As discussed previously and in the Application, South Deuel Wind has performed a thorough suite of environmental studies, engineering analyses, and other development activities to refine the Project. As part of those efforts, South Deuel Wind has conducted on-site micro-siting of turbine locations. Final micro-siting will occur prior to construction based on final geotechnical investigation, engineering design, and other site-specific factors.

Q. Could remaining work require changes to the turbine locations?

A. Yes. The remaining work could necessitate minor shifts to the proposed turbine locations.

Q. What is South Deuel Wind's request with respect to flexibility for future minor shifts in the turbine locations?

A. South Deuel Wind respectfully requests that the permit allow turbines to be shifted within 250 feet of their currently proposed locations, so long as they are located on leased land, 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, and wetland impacts are avoided or are in compliance with applicable United States Army Corps of Engineers ("USACE") regulations.

Q. With respect to other facilities, what is South Deuel Wind's request with respect to final micro-siting?

A. Adjustments to the location of transmission structures for the Gen-Tie Line may also be necessary. Therefore, South Deuel Wind respectfully requests that the Permit allow Gen-Tie Line transmission structures to be shifted within the 150-foot-wide Gen-Tie Line ROW as needed, so long as the transmission structures are located on leased land, cultural resources are avoided or mitigated in consultation with the South Dakota State Historic Preservation Office ("SHPO"); wetland impacts are avoided or are in compliance with applicable USACE regulations; and all other applicable regulations and requirements are met. Adjustments to the location of the electrical collection and SCADA systems, Collector Substation, O&M Facility, access roads, MET towers, ADLS, and temporary construction areas may also be necessary. Therefore, South Deuel Wind respectfully requests that the Permit allow the location of these facilities to be adjusted, as needed, so long as they are located on leased land, 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.

VII. RELIABILITY AND SAFETY

Q. Briefly discuss the reliability and safety concerns taken into account when designing the Project.

A. The Project is located in a rural setting in an area of low population density; construction and operation of the Project will have minimal impacts on the security and safety of the local population. South Deuel Wind will communicate regularly during construction and operation with local first response agencies and coordinate training meetings in accordance with the Project's emergency response plan. Regarding the Gen-Tie Line, the transmission line will include very few mechanical elements, which results in high reliability. The infrastructure is built to withstand

weather extremes and the circuits are automatically taken out of service by the operation of protective relaying equipment when a fault is sensed on the system. The transmission facility will be designed and constructed in compliance with State, County, and utility standards regarding clearance to ground, clearance to utilities, clearance to buildings, strength of materials, and ROW widths.

Q. In designing and siting the Project, did South Deuel Wind conduct any analyses to see how the Project may interfere with other communications in the area?

A. Yes. As part of the siting and design process, South Deuel Wind procured a Microwave Study (Appendix O), an AM and FM Radio Report (Appendix P), a Communication Tower Study (Appendix Q), a Radar and Navigational Aid Screening Study (Appendix R), and an Obstruction Evaluation and Airspace Analysis (Appendix S).

Q. Describe the Microwave Study.

A. The Microwave Study evaluated the potential effects upon Federal Communication Commission ("FCC") licensed microwave paths due to construction and operation of the Project. The study identified one microwave path intersecting the Project Area, and recommended to avoid placing wind turbines in the Fresnel Zone of the microwave path, and to avoid siting turbines directly in front of a microwave antenna. South Deuel Wind sited the turbines in accordance with this recommendation.

Q. Describe the AM and FM Radio Report.

A. The AM and FM Radio Report evaluated the potential effects upon FCC-licensed radio frequency facilities due to construction and operation of the Project. Two FM stations are located within 30 kilometers of the Project Area. There were no database records for AM stations within approximately 30 kilometers of the Project Area. The report concluded that the coverage of FM stations is generally not sensitive to interference due to wind turbines, especially when the turbines are

located in the far field region of the radiating antenna to avoid the risk of distorting its radiation pattern. The report identified no impact on licensed and operational AM or FM stations is expected, due to adequate separation from the Project to avoid radiation pattern distortion.

Q. Describe the Communication Tower Study.

A. The Communication Tower Study evaluated the potential effects upon licensed communication facilities due to the construction and operation of the Project. The study identified two tower structures and fourteen communication antennas within the Project Area that are used for microwave, cellular, and land mobile services in the area. The study suggests turbines be set back from communication towers at a distance equivalent to the maximum height of the turbine to avoid impacts in the unlikely event of a turbine tower failure. The Project meets and exceeds this standard, with the closest communication antenna being approximately half a mile away from a proposed turbine location. If, after construction, South Deuel Wind receives information relative to communication systems interference potentially caused by operation of the Project in areas where reception is presently good, South Deuel Wind will resolve such problems on a case-by-case basis.

Q. Describe the Radar and Navigational Aid Screening Study.

A. The Radar and Navigational Aid Screening Study evaluated the potential effects upon Department of Defense ("DoD") radar due to the construction and operation of the Project. The study concluded that one air defense radar may be impacted, and no impact to weather radar is likely. Regarding the air defense radar, a preliminary review of the Project Area utilizing the DoD's pre-screening tool returned potential impacts to military airspace. According to the Radar and Navigational Aid Study conducted by Westslope Consulting, the Project Area may be in the line of sight of the Tyler Common Air Route Surveillance Radar. This radar is used for air defense and homeland security. South Deuel Wind is proceeding through the FAA's aeronautical study and the DoD Siting Clearinghouse processes and is also working on a mitigation plan with the DoD

regarding potential Project impacts. South Deuel Wind does not anticipate that the final mitigation plan will require any changes to the Project Layout. As discussed in the Application, South Deuel Wind will work with the DoD and/or Department of Homeland Security to mitigate any concerns prior to construction.

Q. Describe the Obstruction Evaluation and Airspace Analysis.

A. The Obstruction Evaluation and Airspace Analysis identified obstacle clearance surfaces established by the FAA that could limit the placement of wind turbines. South Deuel Wind's siting reflects the clearance restriction identified in the analysis. According to this analysis, no military airspace nor training routes overlie the Project Area. As a result, these segments of airspace should not result in military objections.

VIII. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

Dated this 28th day of June, 2024

Alexandra Thompson

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Alexandra Thompson