EXHIBIT A2

BEFORE THE
PUBLIC UTILITIES COMMISSION
STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DAKOTA RANGE III, LLC FOR AN ENERGY FACILITY PERMIT OF A WIND ENERGY CONVERSION FACILITY AND A 345-KV TRANSMISSION LINE FOR THE DAKOTA RANGE III PROJECT

SD PUC DOCKET EL 18-____

PREFILED TESTIMONY OF BRENNA GUNDERSON
ON BEHALF OF DAKOTA RANGE III, LLC

October 26, 2018

I. INTRODUCTION AND QUALIFICATIONS

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

A. My name is Brenna Gunderson. I am the Director of Project Development for Apex Clean Energy, Inc. ("Apex"). My business address is Apex Clean Energy, 8665 Hudson Boulevard North, Suite 110, Lake Elmo, Minnesota 55402.

Q. Please describe your background and qualifications.

A. I have been a wind energy developer for eleven years, six of which I have worked for Apex Clean Energy. I am currently the Director of Project Development. Prior to working for Apex Clean Energy I was a Project Manager of wind development with EDP Renewables. I have a Master of Arts degree in Counseling and Psychological Services from St. Mary's University, Minneapolis, MN. A copy of my statement of qualifications is included as Exhibit 1.

Q. Could you explain the relationship between Apex and Dakota Range III, LLC ("Dakota Range III") with respect to the proposed Dakota Range III Project ("Project")?

A. Dakota Range III, LLC is a wholly-owned subsidiary of Apex Clean Energy Holdings, LLC, and Apex is assisting Dakota Range III with Project development.

Q. Could you please describe Apex's experience in the renewable energy industry, particularly its experience developing wind projects?

A. Apex is an independent renewable energy company based in Charlottesville, Virginia. Apex has diversified portfolios of renewable energy resources capable of producing more than 14,000 MW of clean energy. Apex has brought over 2,200 MW online since 2012, and operating assets under management are approximately 1.2 gigawatts ("GW") as of the third quarter of 2018. Apex has one of the nation's largest, most diversified portfolios of renewable energy resources and has the experience, skills, personnel, and proven capability to successfully manage wind and solar project development. Apex offers comprehensive in-house capabilities, including site origination, financing, construction, and long-term asset management services, and works with corporations, utilities, and government entities,

including Northern States Power Company d/b/a Xcel Energy, AEP, Southern Power, IKEA, the U.S. Army, and Steelcase. Within Grant and Codington Counties, South Dakota, Apex is also currently developing the Dakota Range I & II Wind Project.

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

A. I am the Project Manager.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide an overview of the Project's development history, including: site selection; site analysis; layout and facility design; land use compatibility; and permitting. I will also provide an overview of Project construction, operation, and decommissioning.

Q. Please identify the sections of the Facility Permit Application ("Application") that you are sponsoring for the record.

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

- Section 1.0: Introduction
- Section 2.0: Project Development Summary
- Section 3.0: Facility Permit Application
- Section 4.0: Completeness Checklist
- Section 5.0: Names of Participants
- Section 6.0: Name of Owner and Manager
- Section 7.0: Purpose of, and Demand for, the Wind Energy Facility
- Section 8.0: Estimated Cost of the Wind Energy Facility
- Section 9.0: General Site and Project Component Description
- Section 10.0: Alternate Sites and Siting Criteria
- Section 17.0: Local Land Use Controls
- Section 20.0: Time Schedule
- Section 21.0: Community Impact
- Section 22.0: Employment Estimates
- Section 23.0: Future Additions and Modifications
- Section 24.0: Decommissioning of Wind Energy Facilities

- Section 25.0: Reliability and Safety
- Section 26.0: Information Concerning Wind Energy Facilities
- Section 27.0: Information Concerning Transmission Facilities
- Section 28.0: Additional Information in Application
- Appendix A: Figures
- Appendix C: Roberts County WES Ordinance; Grant County Zoning Ordinance and Grant County Proposed WES Ordinance
- Appendix J: Radio Frequency Structure Study and Analysis
- Appendix K: Property Value Effects Studies
- Appendix M: Decommissioning Cost Analysis

II. PROJECT OVERVIEW

Q. Who will own and operate the Project?

A. Dakota Range III, LLC will own and operate the Project.

Q. Please provide a basic description of the Project, including where it is located.

A. The Project is an up to 151.2-megawatt ("MW") wind energy conversion facility to be located in Grant County and Roberts County, South Dakota. The Project components include:

- Up to 42 wind turbine generators;
- Access roads to turbines and associated facilities;
- Underground 34.5-kilovolt ("kV") electrical collector lines connecting the turbines to the collection substation;
- Underground fiber-optic cable for turbine communications co-located with the collector lines;
- A 34.5 to 345-kV collection substation;
- Up to three permanent meteorological ("met") towers;
- An approximate 8-mile, 345-kV interconnection transmission line ("Transmission Facility") connecting the collector substation and the interconnection switching station;

- An operations and maintenance ("O&M") facility;
- Additional temporary construction areas, including laydown and batch plant areas.

Q. Has Dakota Range III secured all of the necessary property rights for the Project?

A. Yes. Dakota Range III has entered into voluntary agreements with landowners to secure the property rights necessary to construct, operate, and maintain the Project, including the Transmission Facility.

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

A. The Project will include an approximately eight-mile-long 345 kV transmission line that will extend between the Project collector substation and the to-be-built Twin Brooks 345 kV switching station – the same facility to which the Dakota Range I & II Wind Project will interconnect. The switching station will then transmit the Project's output to the grid via the Big Stone South to Ellendale 345-kV transmission line, which crosses the Dakota Range I & II Wind Project.

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

A. No. The Project does not currently have a Purchase Agreement or Off-Take Agreement, but we are currently in discussions with interested parties.

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

A. As shown in Table 20-1 of the Application, the Project's preliminary permitting and construction schedule is below.

Task	Expected Start Date	Expected Completion Date
Commission Siting Permit	October 2018	April 2019
Select Contractor	August 2019	October 2019
Construction Activities	November 2019	October 2020
Turbine Deliveries	July 2020	August 2020

Commercial Operation Date		October 2020

III. OVERVIEW OF SITE SELECTION

Q. Why did Dakota Range III initially identify a site in Grant County and Roberts County for development of the Project?

A. In March 2015, Apex acquired the Project assets from a small local developer, Wahpeton Wind. At the time of acquisition, approximately 10,000 acres were under lease. Because the Project was acquired after initial site selection, and a specific area was offered for sale, Apex was not involved in considering alternative locations for this Project outside of Grant and Roberts Counties. Apex's interest in acquiring the Project was due to the high wind resource, available transmission capacity, and strong interest from the landowners within the area.

Q. Did Dakota Range III explore different alternatives for expanding the site?

A. Yes, once Apex acquired Dakota Range III, it evaluated how best to expand the site. Due to existing constraints from USFWS grassland easements to the east, the Dakota Range I & II Wind Project to the south, and an adjacent competing wind energy development project directly to the east, Dakota Range III determined that staying within approximately eight square miles from the initial location was the best area to focus leasing efforts in order to meet a commercial operation date in 2020.

Q. Please provide an overview of the development work conducted by Dakota Range III to determine that the site was suitable for wind development.

A. Since March 2015, Dakota Range III has undertaken extensive development activities, including: landowner outreach and easement acquisition; local, state, and federal agency and entity coordination; desktop and field environmental studies and surveys of the Project Area; county permitting; and Project design and refinement of the configuration. See Section 2.0 of the Application for further discussion of these development activities. In addition, further information regarding the specific environmental studies and surveys conducted and Dakota Range III's coordination with agencies is provided in the Direct Testimony of Ryan Henning.

Q. Please discuss in more detail the coordination Dakota Range III had with local officials and the local community.

A. Dakota Range III had pre-applications meetings with Grant County and Roberts County on May 14 and 15, 2018, respectively. Dakota Range III plans to submit conditional use permit ("CUP") applications for the Project to the counties in November 2018. In addition, Project representatives have had meetings and discussions with the townships in the Project area: Farmington Township, Mazeppa Township and Blooming Valley Township in Grant County; and Summit Township and Ortley Township in Roberts County.

With respect to the local community, Dakota Range III conducted outreach meetings as shown in the Table 2-1 of the Application and included below:

Meeting	Date
Presentation of Project to Milbank Chamber of Commerce	January 15, 2018
Landowner Open House	March 13, 2018
Presentation to First District	April 17, 2018
Landowner newsletter update	April/May 2018
Landowner Update Presentation	May 9 & September 26, 2018
Pre-permitting meetings – Grant and Roberts Counties	May 14 & 15, 2018
Roberts County meeting	May 23, 2018
Small landowner meetings	June 11, July 9, & August 13, 2018
Rotary Club Presentation	June 28, 2018
Meetings with Sisseton Chamber of Commerce, Tri-State Extension Group, and Roberts County 4-H and toured Lake Area Technical Institute	August 15, 2018
Grow Sisseton Presentation	September 12, 2018
Meeting with Pheasant Country Radio and a Meet and Greet with Sisseton Chamber of Commerce	September 25, 2018
Meeting with Grant County Economic Development Cooperation and Grant County Review	September 27, 2018
Meeting with Sisseton Wahpeton College Vice President and President	October 11, 2018

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

A. Yes. The Project is compatible with the existing land uses, which are primarily agricultural (e.g., crop production, pasture land, hay production). Wind development is particularly compatible with agricultural land because the existing uses can continue around the wind energy facility. As a result, wind development allows landowners to diversify their operations with minimal disruption to existing agricultural uses. The Project has also been designed to be compatible with local zoning requirements in Grant and Roberts Counties. Dakota Range III is not aware of any specific development proposed in the vicinity of the Project, but the Project should not interfere with landowner's existing or planned uses of their land, given the setbacks incorporated into the Project's design.

IV. PROJECT CONFIGURATION

Q. Has Dakota Range III made a final turbine model selection for the Project?

A. No, not at this time. Dakota Range III is considering turbines in the 3.6 MW to 4.5 MW range with a hub height of up to 105 meters (345 feet), a rotor diameter of up to 150 meters (492 feet), and a tip height of up to 180 meters (591 feet). At this time, Dakota Range III currently anticipates using the Vestas V136-4.2 MW turbine at a 105-meter hub height and 136-meter rotor diameter ("RD") with a tip height of 173 meters, and the figures in Appendix A of the Application showing primary and alternate turbine locations are based on this turbine model. However, all setback distances presented in the Application are calculated using the maximum potential rotor diameter of 150 meters (492 feet) and tip height of 180 meters (591 feet). In addition, to be conservative, the impact calculations discussed throughout the Application include all 45 proposed turbine locations. Dakota Range III plans to select the most appropriate technology for the Project in terms of cost efficiency and optimization of wind and land resources. Regardless of the turbine model selected, the Project layout will comply with all applicable county and State setback and sound requirements.

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

A. Yes.

Q. Please describe the configuration shown in Figure 2.

A. The configuration consists of 36 primary wind turbine locations and nine alternate locations. Figure 2 also shows the proposed access roads, underground collection system locations, and potential locations for the O&M facility and Project collector substation.

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

A. Yes. As discussed in the Direct Testimony of Ryan Henning and in Sections 10.0 through 19.0 and Section 21.0 of the Application, the Project was sited to minimize potential environmental impacts. For example, no permanent Project facilities will be placed on United States Fish and Wildlife Service ("USFWS") Grassland Easements or within wetland basins subject to USFWS Wetland Easements, no sensitive species habitat will be impacted, and previously-recorded cultural resources have been avoided.

Q. Has Dakota Range III incorporated input from landowners into the design of the Project?

A. Dakota Range III provided an initial layout to participating landowners and incorporated their feedback into the preliminary layout contained in the Application.

Q. Is the Project layout designed to comply with all applicable County and State turbine setback requirements?

A. Yes.

Q. Could you identify the applicable turbine setbacks?

A. Yes, the applicable setbacks are listed in the table below (see also Table 10-1 in the Application).

Category	Requirements/Commitments
State Requirements	
Setbacks	Turbines shall be set back at least 500 feet or 1.1 times the height of the tower, whichever is greater, from any surrounding property line, unless the owner of the wind turbine tower has a written agreement with an adjacent land owner allowing the placement of the tower closer to the property line (SDCL 43-13-24).
Grant County	
Setbacks[1,2]	- Distance from existing off-site residences, businesses, churches, and buildings owned and/or maintained by a governmental entity shall be at least one thousand (1,000) feet. Distance from on-site or lessor's residence shall be at least five hundred (500) feet. Distance to be measured from the wall line of the neighboring principal building to the base of the WES tower. - Distance from centerline of public roads shall be at least five hundred (500) feet or one hundred ten percent (110%) the height of the wind turbines, whichever distance is greater, measured from the ground surface to the tip of the blade when in a fully vertical position. - Distance from any property line shall be at least five hundred (500) feet or one hundred ten percent (110%) the height of the wind turbine, whichever distance is greater, measured from the ground surface to the tip of the blade when in a fully vertical position unless wind easement has been obtained from adjoining property owner.
Noise	Noise level shall not exceed 50 dBA, including constructive interference effects at the perimeter of the principal and accessory structures of existing offsite residences, businesses, and buildings owned and/or maintained by a governmental entity.
Turbine Spacing	The turbines shall be spaced no closer than three (3) rotor diameters (RD) within a string and 10 RDs between strings. If required during final micro-siting of the turbines to account for topographic conditions, up to 10 percent of the towers may be sited closer than the above spacing, but the permittees shall minimize the need to site the turbines closer.
Shadow Flicker (Voluntary)	Voluntary commitment of no exceedance of a maximum of 30 hours of shadow flicker per year at any existing, non-participating residence, business, or building owned and/or maintained by a governmental entity, unless otherwise agreed to by the landowner. Applicant will take steps to mitigate shadow flicker concerns at residences that could experience shadow flicker concerns at residences that could experience shadow flicker levels above 30 hours per year.
Roberts County	
Setbacks[3]	- 1,275 feet from participating and non-participating residences, businesses, churches, or schools (plus 2.5 feet for each additional vertical foot more than 500 feet in height) - 110 percent the height of the wind turbines from the centerline of public right-of-way.[4] - 110 percent the height of the wind turbines from any property line unless a wind easement has been obtained from adjoining property owner.[5]

Category	Requirements/Commitments
Noise[6]	Noise level shall not exceed 50 dBA, average A-weighted sound pressure including constructive interference effects as measured at the exterior wall of the closest principal and accessory structures.
Turbine Spacing	The turbines shall be spaced no closer than two and one-half (2.5) rotor diameters (RD) (measurement of blades tip to tip) within a straight line. If required during final micrositing of the turbines to account for topographic conditions, up to 10 percent of the towers may be sited closer than the above spacing but the permittees shall minimize the need to site the turbines closer.
Shadow Flicker[7]	A Flicker Analysis shall include the duration and location of flicker potential for all schools, churches, businesses and occupied dwellings within a one (1) mile radius of each turbine within a project. The applicant shall provide a site map identifying the locations of shadow flicker that may be caused by the project and the expected durations of the flicker at these locations from sun-rise to sun-set over the course of a year. The analysis shall account for topography but not for obstacles such as accessory structures and trees. Flicker at any receptor shall not exceed thirty (30) hours per year within the analysis area.

The buildable area for turbines, after taking into account the above setbacks as well as further environmental setbacks, is visually depicted on the siting constraints map provided as Figure 13 in Appendix A of the Application.

V. FINAL MICROSITING

Q. Where is the Project at with respect to micrositing of the turbines?

A. As discussed previously in my testimony, significant analysis has been completed to identify the Project configuration shown in Figure 2 of the Application. Final micrositing of Project facilities will occur in 2019, based on the geotechnical analysis, final engineering design, and other factors.

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

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

Q. What is Dakota Range III's request with respect to flexibility for future minor shifts in the turbine locations presented in Figure 2 of the Application?

A. Consistent with the Commission's decision in Dakota Range I and II, Docket EL18-003, Dakota Range III requests that the permit allow turbines to be shifted within 250 feet or less

from the turbine location identified in the Application without prior approval from the South Dakota Public Utilities Commission ("Commission"), so long as the turbine shifts comply with county and State setback requirements and specified noise and shadow flicker requirements; cultural resource impacts are avoided or minimized; environmental setbacks are adhered to as agreed upon with the USFWS and the South Dakota Department of Game, Fish and Parks ("SDGFP"); and wetland impacts are avoided. Prior to implementing the turbine adjustment, the Applicant would file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any turbine adjustment that does not comply with the aforementioned limitations would be considered a "material change," and the 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 adjustment that includes:
    - An affidavit describing the proposed turbine adjustment, the reason for the adjustment, the reason the adjustment does not comply with one or more 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 adjustment (in different colors).
- Once received, the information would be reviewed by Commission staff, and Commission staff will have 10 calendar days within which to request further Commission review.
- If no further review is requested, Applicant may proceed with the 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 by Commission staff.

Q. Why is the Project proposing alternate turbine locations?

A. Alternate turbine locations are proposed to provide optionality during final micro-siting or a change in the nameplate capacity of the turbine. Furthermore, these additional locations provide layout flexibility to hedge against potential capacity factor reductions in cases where

a necessary turbine shift within 250 feet of its original location lowers the capacity factor greater than activating an alternate location. Alternate turbine locations also helps 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 adhere to county and State setback requirements and specified noise and shadow flicker requirements; cultural resource impacts are avoided or minimized; environmental setbacks are adhered to as agreed upon with the USFWS and the SDGFP; and wetland impacts are avoided.

Q. With respect to other facilities, what is Dakota Range III's request with respect to final micrositing?

A. As a result of final micrositing and the utility coordination needed to facilitate Project interconnection, shifts in the access roads and collector system, as well as changes in the locations of the O&M facility, Project substation, met towers, concrete batch plant, and laydown/staging areas, may be necessary. Therefore, Dakota Range III requests that the permit allow those facilities to be modified, as needed, so long as the new locations are on land leased for the Project, cultural resource impacts are avoided, environmental setbacks are retained, wetland impacts are avoided to the extent practicable, and all other applicable regulations and requirements are met.

Q. Is the siting flexibility requested by Dakota Range III consistent with the siting requirements imposed by Roberts and Grant counties?

A. Yes. Both Grant County and Roberts County allow facilities to be sited anywhere within the Project Area covered by the respective conditional use permit ("CUP") so long as the requirements of the CUP, including setbacks and noise requirements, are satisfied. Dakota Range III will submit its final layout to each county for review as part of the building permit process.

Q. Are any future modifications or expansions of the Project planned?

A. With the exception of the final micrositing flexibility discussed above, Dakota Range III does not have any current plans for future additions to or modifications of the Project.

VI. PROJECT DESIGN AND CONSTRUCTION

Q. Please describe the foundations that will be constructed for the turbines.

A. The foundation provides structural support to the assembled turbine. The wind turbine towers will be connected by anchor bolts to a concrete foundation, consisting of high-strength concrete and reinforcing steel bar (rebar). Geotechnical surveys, turbine tower load specifications, and cost considerations, among other factors, will dictate final design parameters of the foundations.

Q. Will the collection system be installed underground?

A. The collector lines would be installed in a trench at least 42 inches below the ground to avoid potential impact from the existing land uses.

Q. Could you describe the Project substation?

A. The principal function of the substation is to increase the voltage from the collector system (34.5 kV) to the voltage of the transmission line (345 kV), which will transport the electricity produced by the Project to the switching station and, from there, to the grid. The Project substation will be up to 10 acres and is located generally in the center of the Project Area, at the north end and adjacent to the Transmission Facility. Up to 10 acres of land would be purchased to facilitate construction and operation of the collector substation.

The Project substation will consist of one substation transformer, circuit breakers, switching devices, auxiliary equipment, a control enclosure containing equipment for proper control, protection, monitoring, and communications, and associated equipment and facilities. The Project substation would be located within a fenced area and designed in accordance with industry standards to provide safety and security.

Q. Please describe the O&M facility that will be constructed for the Project.

A. The O&M facility would comprise a single- or two-story, 4,000 to 6,000 square-foot building, which will house operating personnel, offices, operations and communication equipment, parts storage and maintenance activities, and a vehicle parking area. An area for

outdoor storage of larger equipment and materials would also be included within a fenced area for safety and security. Dakota Range III plans to purchase up to eight acres to facilitate construction and use of the O&M facility; however, a maximum of five acres would be permanently disturbed.

Q. Please discuss the design and installation of the permanent met towers.

A. Up to three permanent met towers would be installed as part of the Project. These met towers are used to obtain wind data for performance management once the Project is operational. The met towers will be self-supporting with heights not to exceed the hub height of the wind turbines, and will be marked and lighted as part of the Project's Aircraft Detection Lighting System ("ADLS"), as specified and if approved by the Federal Aviation Administration ("FAA"). Each met tower will occupy an area of approximately 42 feet by 42 feet (0.3 acre).

Q. With respect to the Project access roads, how will the access road requirements differ during and after construction?

A. Where necessary, new access roads would be constructed between existing roadways and Project components. The new and improved access roads would be all-weather, gravel surfaced, and generally 16 feet in width. During construction, some of the access roads would be widened to accommodate movement of the turbine erection crane, with temporary widths generally not exceeding 50 feet. The final access road design will be dependent on geotechnical information obtained during the engineering phase. It is anticipated that the access road network for the Project will include approximately eight miles of new private roads, but final turbine placement will determine the amount of roadway required for the Project.

Q. Please discuss the design and installation of the Transmission Facility.

A. To transmit the power generated by the Project, an approximate eight-mile 345 kV feeder line will be built from the Project's substation located in section 13 of Blooming Valley Dakota Township, outside of the public right-of-way along 455th Avenue, then turning east on to 159th Street (Farmington Township) to the Ottertail Power switchyard that is located in section 14 of Mazeppa Township. At the Otter Tail Power-constructed switchyard, the

power would transfer to the Big Stone South to Ellendale 345-kV transmission line, part of the Midcontinent Independent System Operator ("MISO") transmission line portfolio. This Otter Tail switchyard is also being used for the Dakota Range I & II Wind Project. Approximately four miles of the Transmission Facility are located outside the Project Area, but within the Dakota I & II Wind Project Area.

The Transmission Facility design selected for the Project would be a three-phase, single circuit transmission line constructed on wooden H-frame (Class Wood – H1) structures. The H-frame structures would be buried in the ground to a depth of 14 to 15.5 feet and would be 80 to 105 feet tall. Spacing intervals for the H-frames would be approximately 600 feet apart, and the conductor would be located approximately 30 feet above the ground. Guy wires may be used to secure turning structures or other structures as recommended to ensure safety; it is not anticipated more than six guy wires would be used for each turning structure. Dakota Range III would use 795 KCMIL "Tern" reinforced conductors or conductors of comparable capacity.

The Transmission Facility easement corridor would be 150 feet wide and would abut the road right-of-way. The easement for the Transmission Facility would be situated on approximately 192 privately owned acres. Temporary construction impacts along the transmission line easement are anticipated to be approximately 200 feet wide along the route. Permanent impacts would be limited to the 150- foot right-of-way area required for the transmission line structures; temporary impacts would occur in the 50-foot construction easement area. Temporary construction workspace would be restored upon completion of construction. Vegetation in the easement area would be maintained to avoid interference with the conductors, allow for ground-based inspections, and enable access to transmission line structures when maintenance is required.

Q. Discuss the personnel that will be involved in construction of the Project.

A. During construction, the Project is anticipated to result in up to 150 temporary construction jobs over approximately seven months.

VII. PROJECT OPERATION AND MAINTENANCE

Q. Discuss the personnel that will be involved in operation and maintenance of the Project.

A. During operation, the Project will employ approximately 10 full-time personnel as facility managers, site managers, and turbine technicians.

Q. Discuss the inspections that will be conducted and when they will occur.

A. During operations, the O&M staff would perform scheduled, preventive maintenance on the turbines. This is typically done in conjunction with representatives from the turbine manufacturer for the first one to three years. Turbine maintenance is performed twice a year as a semiannual and annual maintenance. Semiannual maintenance is conducted on the turbine for 10 hours with a crew of three technicians. It consists of lubrication, fluid checks, minor electrical inspections and turbine functionality. The annual maintenance is a 36-hour inspection with a crew of three technicians. During this inspection, the entire turbine is maintained, including bolt torque checks on tower and all major components, lubrication and filter changes, electrical inspections, pitch calibrations, and blade inspections amongst other tasks. The onsite operations team also drives throughout the Project on a daily basis conducting unrecorded visual inspections of the Project.

Transmission lines are designed to operate for decades. Typically, they require only minimal maintenance, particularly in the first few years of operation. The estimated service life of the proposed Transmission Facility is approximately 40 years. The principal operating and maintenance cost for transmission facilities is the cost of inspections, which would be performed semi-annually by either truck, utility terrain vehicle, on foot, or by air. Inspections would be conducted to verify that the transmission line is fully functional and that no vegetation has encroached so as to violate good utility best practice prescribed clearances. Dakota Range III would prune or remove vegetation as required to avoid physical contact between the transmission lines and nearby vegetation that could cause the transmission line to fail. Annual operating and maintenance costs for 345-kV transmission lines in South Dakota and the surrounding states are expected to be approximately $10,000. Actual line-

specific maintenance costs depend on the amount of vegetation management necessary, storm damage occurrences, structure types, materials used, and the age of the line.

Q. **How will the Project be monitored between inspections?**

A. Each turbine is connected to a Supervisory Control and Data Acquisition ("SCADA") system via fiber-optic cable, which allows the turbines to be monitored in real time by the O&M staff. The SCADA system also allows the Project to be remotely monitored, thus increasing Project oversight, as well as the performance and reliability of the turbines. Not only would the local O&M office have full control of the wind turbines, but a 24/7 remote operations facility would also have control of the individual turbines. These two teams coordinate to ensure that the wind turbines operate safely and efficiently.

Q. How reliable will the Project be?

A. With respect to a wind energy facility, reliability (or availability) is defined as the ability of the turbines to generate electricity when sufficient wind is available. Based on a Vaisala Wind Energy Due Diligence Report prepared for the Project, the average annual reliability is anticipated to be 95 percent or higher. Additionally, availability guarantees in turbine supply agreements will require the turbine manufacturer and O&M service providers to maintain the turbines at 96 percent availability or higher. The average annual availability of transmission infrastructure is very high, in excess of 99 percent.

VIII. DESIGN, CONSTRUCTION, AND OPERATIONAL CONSIDERATIONS

Q. What safety features will be incorporated into the Project?

A. The Project Area is located in an area of low population density; therefore, construction and operation of the Project would have minimal impacts on the security and safety of the local population. In addition, the following safety measures would be taken to reduce the chance of property damage, as well as personal injury, at the site:

- The towers would be placed at distances away from existing roadways and residences per the applicable setback requirements described in Section 10.2.

- Security measures would be implemented during the construction and operation of the Project, including temporary (safety) and permanent fencing, warning signs, and locks on equipment and wind power facilities.

- Turbines would sit on solid steel, enclosed tubular towers; access to each tower is through a solid steel door that would be locked and accessed only by authorized personnel.

- Tower exteriors would be designed to be unclimbable.

- A professional engineer would certify that the foundation and tower design of the turbines is within accepted professional standards, given local soil and climate conditions.

- Prior to construction, the Project contractor would request utility locates through the One-Call program to avoid impacting existing underground infrastructure.

- Prior to construction, the Project contractor would work with local and county emergency management to develop procedures for response to emergencies, natural hazards, hazardous materials incidents, manmade problems, and potential incidents concerning Project construction. The contractor would provide site maps, haul routes, Project schedules, contact numbers, training, and other requested Project information to local and county emergency management.

- During Project operations, the Project operator would coordinate with local and county emergency management to develop an emergency response plan to be implemented in the event of an emergency at the Project site. The Project would register each turbine location and the O&M building with the rural identification/addressing (fire number) system and 911 systems. The emergency response plan would be sent to Commission staff to make available to the public.

- Following construction, the Project would register underground facilities with the One-Call program.

- Turbines would use two methods to detect icing conditions on turbine blades: (1) sensors that would detect when blades become imbalanced or create vibration due to ice accumulation and (2) meteorological data from onsite 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 would either automatically shut down the turbine(s) in icing conditions (per the sensors), or Applicant would manually shut down turbine(s) if icing conditions are identified (using meteorological data). Turbines would 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. Dakota Range III would pay for any documented damaged caused by ice thrown from a turbine.

The proposed Transmission Facility will be equipped with protective devices, such as breakers and relays, to safeguard the public from the transmission line if a transmission line or pole falls or other accident occurs. Breakers and relays are located where the line connects to the substation, and will de-energize the line in the event of an emergency. In addition to protective devices, proper signage will be posted warning the public of the safety risks associated with the energize equipment.

Q. Will the Project participate in the South Dakota One-Call program?

A. Yes. The Project will utilize the One-Call program to locate underground infrastructure prior to construction. In addition, once construction is completed, the Project will register its facilities with the One-Call program.

Q. With respect to use of existing local and state roads as haul roads, will Dakota Range III coordinate with the applicable road authorities regarding the use and restoration of those roads?

A. Yes. Dakota Range III plans to enter into road use agreements with each road authority to identify haul roads, define use and authorized upgrades, and specify restoration of roads utilized during construction of the Project.

Q. What steps will the Project take to prepare for a potential emergency situation at the Project site during construction and when the Project is operational?

A. Prior to construction, the Project's contractor would work with local and county emergency management to develop procedures for response to emergencies, natural hazards, hazardous materials incidents, manmade problems, and potential incidents concerning Project construction. The contractor would provide site maps, haul routes, Project schedules, contact numbers, training, and other requested Project information to local and county emergency management.

During Project operations, the Project operator would coordinate with local and county emergency management to develop an emergency response plan to be implemented in the event of an emergency at the Project site. The Project would register each turbine location and the O&M building with the rural identification/addressing (fire number) system and 911 systems. The emergency response plan would be sent to Commission staff to make available to the public.

Q. Will the Project be designed, constructed and operated in compliance with all applicable federal, state, and local regulations?

A. Yes.

IX. PERMITS AND APPROVALS

Q. In addition to an Energy Facility Permit and CUPs from the Counties, what other permits are required for the Project?

A. The permits needed for the Project are outlined in Table 28-1 of the Application, and include FAA Determinations of No Hazard for the final layout, qualification for coverage under United States Army Corps of Engineers Nationwide Permit 12, water use-related permits from the South Dakota Department of Environment and Natural Resources, an Aeronautical Hazard Permit from the South Dakota Department of Transportation ("SDDOT") Aeronautics Commission, roadway and right-of-way use permits from the SDDOT and

Roberts and Grant Counties, and CUPS and building permits from Grant and Roberts Counties.

Q. Will the Project obtain all local, state and federal permits required for the Project?

A. Yes.

X. DECOMMISSIONING AND SITE RESTORATION

Q. What is the estimated life of the Project?

A. The anticipated life of the Project is approximately 30 years, but could be extended through retrofitting or other upgrades to the existing components.

Q. Will the Project be decommissioned at the end of its useful life?

A. Once the facilities constructed have reached the end of their useful life, it may be determined that it is appropriate to retrofit or otherwise upgrade the Project facilities and continue operations. If retrofitting or upgrading is not done, then the Project will be decommissioned.

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

A. Yes, as discussed in the Decommissioning Cost Analysis for the Project (Appendix M to the Application), the Project will be decommissioned in accordance with all applicable local and State requirements, as well as requirements set forth in the Project's easement agreements.

Q. Has Dakota Range III analyzed the cost of decommissioning of the Project?

A. The net decommissioning cost (in 2018 U.S. dollars) is estimated to be $3,651,000, assuming no resale of Project components, or $101,420 per turbine. The decommissioning costs, assuming resale of some of the Project's major components, is $1,908,000 or $53,000 per turbine. The second scenario (partial resale) is considered to be the more likely option. These estimates are based on the decommissioning approach outlined in the Decommissioning Cost Analysis. For further discussion, see the Decommissioning Cost Analysis in Appendix M to the Application.

Q. Who will be responsible for covering all anticipated decommissioning costs?

A. Dakota Range III will be responsible for covering all anticipated decommissioning costs.

XI. PROJECT BENEFITS

Q. Please describe the local and state benefits the Project will provide.

A. As discussed in Section 7.0 of the Application, the electricity generated by the Project would help MISO operators meet electricity demand in both the immediate and surrounding MISO control areas. This Project would also provide zero-emission cost electricity to the grid, as well as firm price stability due to the availability of a renewable resource that would replace the need for ongoing fuel costs.

As discussed in Section 21.1.2.1 of the Application, the Project will also provide a variety of local economic benefits. During construction, the Project is anticipated to result in up to 150 temporary construction jobs over approximately seven months. Construction and operation are also anticipated to inject millions of dollars into the local economy as a result of the purchase of good and services.

In addition, the Project represents an approximately $200 million investment in Grant and Roberts Counties. Dakota Range III would pay taxes on the Project, which would significantly increase the revenue available for a variety of local needs.

Overall, over the expected 30-year life of the Project, the Project is expected to generate over $74 million in direct economic benefits for local landowners, new local employees, local communities, and the State of South Dakota. Thus, the Project is anticipated to provide significant economic benefits locally, as well as within the State.

XIII. CONCLUSION

Q. Based on the analysis Dakota Range III has conducted of the Project Area, has the Project been sited so as to minimize human and land use impacts?

A. Yes. By incorporating the applicable setbacks, noise limitation requirements, and shadow flicker requirement into Project design, the Project has minimized potential impacts to inhabitants in and around the Project. In addition, the existing agricultural land uses can continue in and around the Project. Dakota Range III will comply with all applicable local, State, and Federal permitting requirements, and will implement the best management practices and other measures discussed above and in the Application during construction and operation of the Project. Therefore, the Project is not anticipated to have any long-term negative impacts on inhabitants or land use in or around the Project Area.

Q. Does this conclude your testimony?

A. Yes.

Dated this 25th day of October, 2018.

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Brenna Gunderson