BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Application of Flying Cow Wind, LLC for a Facilities Permit for a 345 kV Transmission Line

Docket No. EL18-__

DIRECT TESTIMONY
OF ANNE-MARIE GRIGER

September 27, 2018

INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Anne-Marie Griger. My business address is 9020 N. Cap. of TX Hwy., Suite 335, Austin, TX 78759.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of the Applicant, Flying Cow Wind, LLC (“Applicant" or "FCW”).

Q. WHO IS YOUR CURRENT EMPLOYER AND WHAT POSITION DO YOU HOLD?

A. I am employed by Renewable Energy Systems Americas Inc. ("RES") as Permitting Manager.

Q. PLEASE DESCRIBE YOUR POSITION AND YOUR RESPONSIBILITIES FOR THE PROJECT?

A. As a permitting manager, I conduct initial site screening and determine permitting requirements for wind, solar, and transmission line projects. I also review environmental study results, meet with permitting agencies and local officials, prepare state and local siting permit applications, and represent RES and public meetings.

Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?

A. I have ten years of experience in the wind energy industry. Prior to working for RES, I spent eight years as a consultant managing environmental studies and preparing state siting applications for wind energy and transmission line projects. I have a master of urban and regional planning and a bachelor of science in environmental policy and planning.

Q. WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION AND CONTROL?

A. Yes.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF SOUTH DAKOTA?

A. No.

PURPOSE OF THE TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support information in the application regarding application completeness and the environmental information for the Project.

Q. DO YOU SPONSOR AN EXHIBIT IN SUPPORT OF YOUR TESTIMONY?

A. Yes, I sponsor the following exhibit to my testimony:

Exhibit 1: Resume of Anne-Marie Griger

Exhibit 2: Detailed Map of Proposed Route and Associated Facilities

COMPLETENESS

Q. PLEASE DESCRIBE THE SECTION 1.3 OF THE APPLICATION.

A. Section 1.3 provides an overview of each matter set forth in South Dakota Codified Laws Chapter 49-41 B and in Administrative Rules of South Dakota Chapter 20: 10:22 (Energy Facility Siting Rules) related to transmission lines. The Completeness Checklist presented in Table 1 indicates where in the application each rule requirement is addressed.

ENVIRONMENTAL INFORMATION

Q. PLEASE DESCRIBE THE AREA WITHIN WHICH ENVIRONMENTAL IMPACTS WERE ANALYZED FOR THE PROJECT.

A. As described in the Application, the project ("Project") consists of an underground electric collection cabling system with six circuits of approximately 200 linear feet each, as measured from the Minnesota – South Dakota border ("Collection Lines"); a substation with a 34.5 kilovolt (kV) to 345 kV step-up transformer ("Project Substation"); and approximately 10.42 miles of 345 kV overhead transmission line ("Transmission Line"). The Application provides analysis of a 1-mile-wide corridor (the "Study Area") that includes the proposed route for the Transmission Line ("Propose Route"), as shown in Exhibit 2, and a buffer of 0.5 mile on either side of the proposed route. The Study Area covers approximately 6,090 acres. The Propose Route is located in the "Permanent Easement Area," a 200-foot wide corridor (100 feet on either side of centerline) plus a 300-foot radius around each pole, within participating property. Disturbance from construction of the Project is anticipated in the Permanent Easement Area and certain additional temporary access and work areas ("Construction Disturbance Area"). This Application analyzes the potential impacts of the Project in the Permanent Easement Area and Construction Disturbance Area.

Q. PLEASE DESCRIBE THE EFFORTS FCW UNDERTOOK TO EVALUATE THE STUDY AREA.

A. FCW and its consultants analyzed the Study Area through a combination of desktop analyses, field analyses, and agency consultation. FCW evaluated information to identify the existing conditions potential impacts from the project within the Study Area and the region as a whole, including the geology of the area; soil conditions including prime farmland; regional hyrodology including rivers, lakes, streams, wetlands, watersheds, groundwater resources, protected and impaired waters, and other water resources;

terrestrial and aquatic ecosystems, including sensitive species; land use; water quality; air quality; and the local community, including cultural resources.

Q. WHAT FIELD STUDIES WERE COMPLETED TO SUPPORT THE APPLICATION?

A. FCW engaged outside consultants to complete various resource studies, some of which are ongoing (as described below). Completed surveys for the proposed Project include raptor nest surveys and habitat surveys. These surveys are further described in Sections 11 through 19 of the Application.

Q. ARE THERE ANY STUDIES THAT ARE ONGOING OR ADDITIONAL INFORMATION THAT FCW PLANS TO COLLECT?

A. Yes. FCW plans to complete field surveys for wetlands and waterbodies in the Study Area in the last two weeks of October 2018. Additionally, cultural resources information is currently based on a literature review of cultural resources in the Study Area, and the Applicant has contracted qualified archaeologists to conduct a Phase I archaeological resources inventory of the Study Area in October 2018. Finally, FCW continues to evaluate land title records to identify any wetland easements, grassland easements, or other conservation easements in the Study Area.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO GEOLOGY AND SOILS.

A. There are no significant impacts that are expected from the Project to geology and soils in the Study Area. During construction, however, there is a risk of erosion of disturbed soils in the Construction Disturbance Area, which could impact soil quality in localized areas and increase stormwater runoff and sediment transport into receiving waters. These potential impacts will be minimized by following best management practices that will be

set forth in a Stormwater Pollution Prevention Plan ("SWPPP") for the Project prior to the start of construction.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO HYDROLOGY.

A. There are no significant impacts that are expected from the Project to hydrologic resources in the Study Area. While there are surface water resources in the Study Area, potential impacts to these resources are expected to be minimal. The Proposed Route is designed to avoid surface water resources to the greatest extent possible by adjusting the route and/or spanning the resources. Additional minor adjustments may be made based on the results of field surveys of wetlands and waterbodies to be completed. In cases in which complete avoidance is not possible, the Applicant will make every effort to minimize the footprint within these resources, including the use of construction matting for equipment, following recommended construction timing windows to reduce potential impacts to wildlife, the use of best management practices, and other measures. As noted above, stormwater runoff from construction activities and impervious surfaces will be mitigated through use of best management practices. There are no records of state or federally listed aquatic plant species in Deuel County.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO SENSITIVE PLANT SPECIES.

A. No listed or sensitive plant species are known within the Study Area and none were observed during native prairie site reconnaissance of the area. Significant permanent impacts to existing natural and undisturbed areas, and resulting impacts on sensitive plant species, are not anticipated. The Construction Disturbance Area is located on primarily agricultural lands, and vegetation removal will affect primarily cultivated lands, hayfields/pastures, and roadside ditches. Native prairie and other grasslands will be

avoided to the extent possible. Any natural areas disturbed during construction will be restored and returned to pre-construction conditions using native vegetation seed mixes.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO FAUNA.

A. Significant impacts to fauna, including sensitive species and their habitat, is not expected. There are no records for the Dakota skipper or Poweshiek skipperling in the USFWS database within the Study Area, and there is no designated critical habitat within the Study Area for either species. Similarly, the northern long-eared bat is also not present in the Study Area based on United States Fish and Wildlife Service data that show no occurrence records for the species in Deuel County, and the results of FCW's acoustic surveys in the vicinity. Eagle use and nest surveys conducted within the adjacent Bitter Root Wind Farm and within two-mile buffer from the proposed transmission line route and Bitter Root Wind Farm area boundary detected occupied active eagle nests and unoccupied inactive nests consistent with bald eagle nests within a five-mile radius of the transmission line Study Area, with the closest occupied nest located 0.87 miles from the Project Route. While these nests are present, impacts from the Project are not expected to be significant. Impacts will be avoided to the extent practicable in Project design, which has incorporated measures from multiple federal and state guidance sources. Additionally, because of the configuration of the Transmission Line and the installation of bird diverters along the portion of the route along Fish Lake, impacts to avian species is not likely to occur. Construction of the Project will potentially result in temporary impacts to terrestrial fauna within the Study Area from human presence, construction of transmission line poles, Project Substation and associated facilities, and access to the construction areas.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO STUDY AREA AESTHETICS.

A. The degree to which the Project will be visible will vary based on location. The Project will frequently be visible to landowners who live along or near the Project, or residents or visitors who travel on roads near the Project. The Project will also be within view of the Woodlake Evangelical Lutheran Church community while on the church property. The Project will not be observable from organized communities such as Astoria (to the south) or Brandt (to the northwest). Visual impacts resulting from the limited permanent removal of trees and/or shrubs and other vegetation for construction purposes may also occur.

While visual impacts will occur by the introduction of the proposed transmission line and substation into the regional landscape, existing similar transmission lines and associated substation facilities are present in the Project area and already part of the viewshed, and huts impacts are anticipated to be minimal. Further, no unique viewsheds or aesthetic resources have been identified that would be negatively impacted by the proposed Project and no other mitigation for aesthetics is proposed for the Project.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO AIR QUALITY.

A. No significant or long-term impacts to air quality are anticipated. Some short-term impacts limited to the time of construction are anticipated. Fugitive dust emissions will increase during Project construction as a result of increased truck and equipment traffic, as well as site clearing and excavation activities. Additionally, short-term emissions from diesel trucks and construction equipment can also be expected. These impacts would not result in any violations to NAAQS standards for particulate matter. FCW will proactively employ practices and measures to reduce air quality impacts during construction, which are described in detail in Section 16.0. Upon completion of construction activities, Project

operations would not produce air emissions that would impact the surrounding ambient air quality.

Q. DESCRIBE ANY SIGNIFICANT IMPACTS TO CULTURAL RESOURCES.

A. A desktop literature review revealed the presence of seven previously reported archaeological sites within the 1-mile Study Area (one of which intersects the Proposed Route) and six previously reported architecture inventory resources within the 1-mile Study Area. Based on the literature review, it is likely that the Project area has potential to contain archaeological resources and potentially additional architectural resources. As noted above, the Applicant has contracted qualified archaeologists to conduct a Phase I archaeological resources inventory of the Project area in October 2018, and will work cooperatively with SHPO regarding results and recommendations. FCW will adjust Project construction plans and/or the Project design to avoid identified resources. If Project plans cannot be adjusted, further investigation of the resource may be needed and further coordination with SHPO will be required.

Q. ARE THERE ANY OTHER POTENTIAL IMPACTS OF THE PROJECT?

A. Yes, potential impacts and associated mitigation techniques are set forth in Sections 10.2 (Physical Environment), 11.2 (Hydrology), 12.2 (Terrestrial Ecosystems), 13.2 (Aquatic Ecosystems), 14.0 (Land Use), 16.0 (Water Quality), 17.0 (Air Quality), and 19.0 (Community). These additional potential impacts are minor, temporary, and/or easily mitigated as described in the relevant section.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Dated this 27th day of September, 2018.

Anne-Marie Griger