BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

DOCKET EL18-026

IN THE MATTER OF THE APPLICATION BY PREVAILING WIND PARK, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN BON HOMME COUNTY, CHARLES MIX COUNTY AND HUTCHINSON COUNTY, SOUTH DAKOTA, FOR THE PREVAILING WIND PARK PROJECT

Direct Testimony of David Lawrence
On Behalf of the Staff of the South Dakota Public Utilities Commission
September 10, 2018

Q: State your name and occupation.

A: My name is David Lawrence, and I am a real property appraiser.

Q: State your business address.

A: My business address is 4820 E. 57th Street, Sioux Falls, South Dakota.

Q: By whom are you currently employed?

A: I am a real property appraiser with DAL Appraisal & Land Services.

Q: Please state your educational and professional background.

A: I received a Bachelor of Business Administration from Western State University in Gunnison, Colorado. After completing a four-year degree, I worked in real estate development, site acquisition, and management for a nationally branded franchise system. My career transitioned to real property valuation, and I began work with the RJ Hobson Appraisal Firm. I continued my real property studies with the Appraisal Institute earning the MAI designation, the SRA designation, and the AI-RRS designation. After completing my designations with the Appraisal Institute, I continued my real property studies with the International Right of Way Association, earning the SR/WA designation. I am currently active in the Appraisal Institute, the International Right of Way Association and the Professional Appraisers Association of South Dakota.

Q: Can you briefly describe the requirements to be a real property appraiser in South Dakota?

A: The South Dakota Appraisal Certification Program has four types of license levels for performing valuation services: State-Registered Appraiser (entry level); State-Licensed Appraiser (mid-level licensure); State-Certified Residential Appraiser (highest level of residential certification); and the State-Certified General Appraiser (highest level of certification). The first three license levels have scope of practice limitations, with an emphasis on residential property. The State-Certified General Appraiser license is without limits to property type or complexity for an appraisal assignment. The residential license levels require holding an associate degree or higher from an accredited college. The State-Certified General Appraiser license requires a bachelor's degree or higher from an accredited college or university. Beyond the college or secondary education, each license level has specific appraisal education and experience requirements, national testing and peer work product review in conformance with the Uniform Standards of Professional Appraisal Practice (USPAP) and the laws of South Dakota.

Q: What level of appraisal credentials do you hold with the State of South Dakota?

A: I am a State-Certified General Appraiser.

Q: What work experience have you had that is relevant to your involvement in this project?

A: I have a wide range of appraisal experience across South Dakota and neighboring states including property types such as residential, commercial, ranch and farm. I've been fortunate in my appraisal career to have worked across the diverse market areas of South Dakota, including East and West River. Most of my appraisal experience is in right-of-way, linear and energy projects. As part of my practice, I provide appraisal services for damaged property and diminution value studies. These assignments have ranged from measuring the impacts of a high-voltage transmission line on residential property values, to analyzing the impacts of the 2011 Missouri River flood on residential and agricultural property values in Union County. In the last nine years, I've completed several studies analyzing the impacts of underground pipelines on agricultural land values in Montana, South Dakota, Minnesota, and Nebraska. I have extensive experience in South Dakota developing damage studies and their relationship to properties values. I've developed South Dakota impact studies on the Keystone Phase I, Keystone XL, NuStar, SDIP, Northern Border, Lewis & Clark, Magellan, Rockies Express, and MDU pipelines. Most recently, I completed research that analyzed the influences from the Buffalo Ridge Wind Farm on rural residential properties values in Brookings County, South Dakota. My experience with impact studies across the state has given me the knowledge and experience to correctly research and apply the methodology for credible analysis.

Q: Have you testified before the South Dakota Public Utilities Commission?

A: Yes. I have provided testimony in Docket EL18-003 for the Dakota Range Wind Project in Grant County and Codington County. I have also provided testimony in Docket EL17-055 for the Crocker Wind Farm in Clark County.

Q: On whose behalf was this testimony prepared?

A: This testimony was prepared on behalf of the Staff of the South Dakota Public Utilities Commission.

Q: What is the purpose of your testimony in this proceeding?

A: The purpose of my testimony is to (1) assist the Commission in understanding valuation principles and techniques and how they can be appropriately applied to estimate value impacts from the Prevailing Wind Park Project and (2) assist the Commission in understanding the information presented by Prevailing Wind Park in regards to potential value impacts on South Dakota real property.

Q: Are you aware of any studies that have been conducted in South Dakota that properly support and address the potential impacts of wind project, towers or turbines on real property value?

A: As of the effective date of my direct testimony, I'm not aware of any comprehensive study that properly addresses the potential value impacts, if any, on agricultural or residential properties in South Dakota from a wind farm, turbine, tower or wind project. I am aware of a preliminary study I completed for the Dakota

Range Wind Project in Docket EL18-003, in which the area of study was limited to only one of the fourteen counties in South Dakota impacted by a wind project. This research identified a sample population of seven rural residential properties in Brookings County that were analyzed to measure the effects on value from the presence of a wind tower, wind turbine or wind project. The scope of work, and results of my research are addressed in my testimony. I also am aware of a Market Impact Analysis prepared by Michael S. MaRous, MAI, CRE that uses the sale research from my Brookings County study, supplemented by sales data from Minnesota, Iowa, and Illinois, and assessor surveys from South Dakota, Iowa, Minnesota, Iowa and Illinois.

Q: What materials have you reviewed in this docket?

A: I have reviewed the Application, specifically the pre-filed testimony of Michael MaRous, including Exhibits 1 through 6, and Appendixes P & Q that address the property values study by Lawrence Berkeley National Laboratory (LBNL).

Q: Does Prevailing Wind Park's valuation expert, Mr. MaRous, meet the criteria to be a real property appraiser in South Dakota?

A: Yes. Mr. MaRous is a Credentialed South Dakota Certified General Real Estate Appraiser with permit No. 1467CG issued by the South Dakota Appraisal Certification Program. Mr. MaRous' qualifications show extensive appraisal experience with different property types including energy and wind projects, and competency in this type of appraisal work.

Q: Do the studies and testimony of the Applicant adequately reflect the potential impact to property values in the vicinity of the proposed Prevailing Wind Park Project?

A: The studies and testimony presented by Prevailing Wind Park provide a useful starting point to gauge the potential impacts that can be applied to rural properties in the subject market area for the Prevailing Winds Project; however, the studies presented have limitations that need to be considered for their applicability to the proposed project area.

First, the Market Impact Analysis only presents general market information from the Prevailing Winds Project area and the Southeast Agricultural Region to gauge the potential value impacts a wind project can have on real property values. While sales evidence can be challenging in the rural market areas, the Market Impact Analysis does not analyze the wind projects that are direct comparisons to the proposed project area. The Beethoven Wind Project with 43 turbines is located just to the north of the proposed project area and became operational in 2015. SD Wind Partners, Prairie Winds SD-1 and Prairie Winds are located to the northwest with 108 turbines and have been operating since 2011. The Wessington Springs Wind Project began operations in 2009 with 34 turbines and the Titan Wind Project, with 10 turbines, became operational in 2009; both are located north of the proposed project area. These existing South Dakota wind projects provide an excellent comparison for sales data, interview analysis with impacted property owners, and overall analysis of the effects of a wind project in the Southeast

Region of South Dakota. While I have not completed research in this market area for a study, I am aware of two sales that have occurred in proximity to a wind tower in the Southeast Region near the proposed project area that were not addressed in the updated Market Impact Analysis. Without data from these comparable wind projects, there is a gap in the research and the results of the data are not able to be compared to the Brookings County research and other data contained in the Market Impact Analysis for consistency analysis.

Second, most of the studies (Exhibits 2-6, Appendixes P & Q) present statistical analysis of a large, well-defined residential dataset from other market areas that are not necessarily comparable to South Dakota (Ontario, Canada; Rhode Island; Ridgetown, Canada; and Massachusetts).

Third, the studies presented as Exhibits 2 & 3, are developed to assist with Canadian assessment valuations for the purpose of taxation and are not necessarily applicable to South Dakota.

Q: Can you explain some of the limitations of a statistical study that uses the hedonic regression method that has been presented by Prevailing Wind Park in Exhibits 2-6, and Appendixes Q & P?

A: To estimate the value of real property using the hedonic mathematical equation, property characteristics or independent variables are identified that contribute to market value such as view, shape, topography, location, and utility. By including proximity or view of a wind energy project or wind tower as a variable in the regression, the appraiser can better estimate the negative or positive impact the

wind energy project or tower will have on the value of the property. The hedonic analysis has been an accepted methodology in the appraisal profession for years; however, it has limitations. One significant weakness of hedonic analysis was pointed out in the winter 2012 edition of the Appraisal Journal. In the article James Chalmers, PhD states, "(hedonic analysis)…*does not rule out the possibility that some individual properties are significantly affected nor provide any insight into the conditions shared by those individual properties that make them vulnerable to transmission line impacts."* In my experience with damages studies, I have found Chalmers' statement to be valid in analyzing properties affected by an energy project. To truly gauge a project's impact, the methodology needs to address more than just a mathematical analysis of a large data set from different market areas around the United States. The study needs to address a case-by-case analysis with sale evidence from specific and surrounding market areas that would be applicable to the impacted properties.

Q: Did Prevailing Wind Park provide this type of study with the Market Impact Analysis prepared by Mr. MaRous, as described above?

A: Yes, the Market Impact Analysis provides additional insight with case-by-case analysis in Iowa, Minnesota and Illinois. The Market Impact Analysis also includes sales research from Brookings County and concludes there was no market data indicating a measurable effect on property values in Brookings County from the presence of a wind project.

Q: Are the studies presented by Prevailing Wind Park relevant to the Prevailing Wind Park Project area?

A: Although there are limitations with the information presented, I find the data presented by Prevailing Wind Park to be a relevant starting point in evaluating the potential impact of a wind project, turbine or tower on property values in the project area for several reasons. First, the sales research I completed in Brookings County did not show a measurable effect on the selling prices of rural residential properties in proximity to a wind project. Second, the Brookings County research was consistent with the national peered-review studies; and third, the sales data, market analysis and interviews completed by Mr. MaRous were consistent with my preliminary research in Brookings County.

Q: Can you briefly describe the scope of work for your Brookings County study competed for the Dakota Range Wind Project in Docket EL18-003?

A: In preparation for the Dakota Range hearing, I completed research in Brooking County to identify properties that have sold in proximity to a wind project, tower or turbine. My research identified thirteen arm's length transaction in Brookings County. Unfortunately, due to time constraints of the June hearing, I was not able to perform a complete case-by-case analysis for the thirteen sales identified. I did prioritize the residential sales BK1, BK2, BK3, BK4, BK5 and BK7. For these sales I performed a site inspection, interview analysis, and a sales analysis. The remaining sales were analyzed with site inspections and interviews. My field research and site inspections had particular emphasis on examining the proximity

of a wind tower and how the tower proximity relationship can influence rural properties. Inspections were done from the public roadway for sales BK1, BK2.5, BK6, BK7, BK9, BK10, BK11 and BK12. In five cases the property owner was present, and I was able to complete an on-site inspection with sales BK2, BK3, BK4, BK5, and BK8. I did not have time to drive to Jerauld County, and relied on high resolution aerial images for sale JD13 and a telephone participant interview. In addition to the BK sales, I visited several rural residential and agricultural properties in the market area influenced by a wind tower. These inspections allowed me to evaluate the influences a wind tower can have on the different property types in the market area of Brookings County. After completing the field work, the next step was to interview as many of the participants in the transaction as possible. I knew a buyer's name and address, and/or a broker involved with the transaction from preliminary research. Given the name and address, I was able to search for phone numbers. Unfortunately, finding a working phone number for participants is becoming more difficult, but I was able to talk with about twenty participants by phone or in person. The objective of the interview analysis was to verify terms of the sale and to inquire whether the sale and/or subsequent use of the property were in any way affected by the proximity of a wind tower. A set of scripted questions were asked in such a manner that no bias or preconceived notions were projected during the interview. Based on the recorded legal documents, site inspections, and information gathered, a detailed description of BK1, BK2, BK3, BK4, BK5 and BK7 was developed for the sales analysis. The next step was to develop data on property sales that were similar in time, location

and property type to each of the BK sales, but not in proximity to a wind tower. The methodology of the analysis is similar to the sales comparison approach in the appraisal process. To identify this research, I used the Brookings County MLS, Beacon and aerial images to confirm that each comparable sale was unaffected by a wind tower, turbine or wind project. Then each of these sales were summarized in terms of physical characteristics and qualitatively analyzed for differences. The uninfluenced sales were compared to the BK influenced sale for analysis. The final step was to analyze the information collected for each transaction and draw conclusions with respect to the effect, if any, of the proximity of the wind tower on the transaction or on use of the property. The summary of BK1, BK2, BK3, BK4, BK5 and BK7 can be found in Exhibit_DAL-2 of my direct testimony. As mentioned previously, I did not have sufficient time to complete a thorough analysis with each of the thirteen individual sales. My scope of work did not include: 1) a sales analysis for sales BK6, BK8, BK9, BK10, BK11, BK12 and JD13; 2) a site visit for JD13; 3) a review of the chain of title for each property ownership since the project first became operational; 4) a site visit and additional verification for the comparable sales identified with MLS; 5) an analysis of the history of the wind project(s) in Brookings County, such as installation date, tower characteristics, project capacity, project construction, operational history etc. and 6) supplemental research in the other thirteen South Dakota counties with operating wind projects.

Q: What are your general conclusions from the research you completed?

A: Based on my research within the Brookings County market, the evidence supports the presumption there have been no adverse effects on the selling price of rural residential properties in proximity to a wind tower, turbine or wind project. However, the interview and site analysis support the presumption that proximity to a wind tower could influence the property owner's bundles of rights, such as the right to quiet enjoyment. Given the responses from market participants, there is a relationship between the distance from a turbine and the effects on value perceived by individual property owners who live in proximity to wind towers. Wind tower noise is the number one reason cited by market participants for a perceived impact on value; however, the sales data suggests otherwise. More specifically, the Brookings County research for rural residential properties suggests: 1) there was no discernible adverse impact on the selling prices in Brookings County that could be supported for sales BK1, BK2, BK3, BK4, BK5 and BK7; 2) Interviews with buyers of properties near wind towers were unanimous to report the proximity of the wind tower did not influence the price they paid; 3) In six of six rural residential sales, the market data was consistent, even though the site inspection observed influences of noise and view obstructions within the property boundaries. Although I did not complete a sales analysis for the agricultural sales, the research supports the presumption there have been no adverse effects on the selling price of agricultural properties in proximity to and within the boundaries of the property with a wind tower. During the interview process, participants of agricultural properties were consistent to report the price paid was not affected by a wind tower

and in some cases reported a stronger price per acre when the wind payments transferred with the property. The most common issues farmers cited about wind towers is the limitation of aerial spraying, poor reclamation, and compaction issues after the installation of the towers, possible yield loss due to the inability to plant straight rows and the difficulties associated with working around the towers during planting and harvest. Without comparison of the sales evidence with the interview evidence, the agricultural analysis is determined to be inconclusive; however, all agricultural participants were consistent to report there was no adverse effect to the price paid because of the presence of a wind tower. The summary of my research is limited to Brookings County and supported by analyzing six rural residential sales, seven agricultural sales, and twenty market participant interviews.

Q: Do you have any additional comments regarding your findings from the Brookings County study?

A: I would caution the Commissioners or any reader of my Brooking County study that the research represents only a small representation of one of fourteen counties in South Dakota where there is an operating wind project. With an assignment of this nature, I would typically have a multi-county or tri-state research area with a sales population of at least fifteen sales for a case-by-case analysis (per property type) with participant interviews of more than thirty. While the research is consistent with the LBNL study and Mr. Marous' research, a pool of six rural residential and seven agricultural sales is a limited population upon which to

base conclusive results. Brookings County represents only seven percent of the study area that is available in South Dakota for research of the impacts of wind projects on real property values. Nevertheless, the research reported in my testimony provides a useful starting point from which to consider the facts of a particular situation and does not rule out that an individual property could be adversely impacted from the presence of a wind tower, turbine, or wind project.

Q: In response to Staff Data Request 1-4, Ms. Karen Jenkins requested a permit condition of a "guarantee of property value to be funded and developed by the Applicant, subject to approval of the property owner to protect residents in the footprint and buffer zone from financial loss should the residence become unlivable and/or unmarketable." Do you have any comments on this condition request?

A: While I understand the goal of a property value guarantee, I have concerns about how to properly manage the valuation process for consistent results before the project and after the installation of the wind project. Many variables can influence the criteria to establish value or to reestablish value at a later date. For example, who is qualified to provide a value opinion? What will be the scope of work for establishing the market value before, and the market value after the installation of the wind project? How will changes in a property's condition such as a well-maintained property versus a poorly maintained property be measured for value differences in contrast to the operational date of the wind project? I would be more supportive of the idea of a property value guarantee if there were a way to

consistently define and measure the valuation process for a property's market value in proximity to a wind project.

Q: Does this conclude your testimony?

A: Yes.