BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

DOCKET NO. EL18-003

IN THE MATTER OF THE APPLICATION BY DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN GRANT COUNTY AND CODINGTON COUNTY, SOUTH DAKOTA, FOR THE DAKOTA RANGE WIND PROJECT

Direct Testimony of David Lawrence
On Behalf of the Staff of the South Dakota Public Utilities Commission
May 4, 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 College 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 and geographical competency 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. I have provided appraisals for right-of-way acquisitions, condemnation, and damage property cases. I have managed the appraisal process for several recent energy and large-scale linear projects in South Dakota including Keystone L.P., Keystone XL and the Dakota Access pipelines. 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. The scope of work for these projects, included sales analysis studies, site impact studies, and highest and best use studies across

South Dakota. My various impact studies have relied upon survey-based research with hundreds of South Dakota market participants impacted by an energy project, and sales research in every county which the projects occupy. My experience with impact studies across the state has given me the competency and knowledge 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 submitted written testimony in Docket EL17-055, In the Matter of the Crocker Wind Farm, LLC, Permit Application for a Wind Energy Facility and 345 kV Transmission Line in Clark County, South Dakota.

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 Dakota Range Wind Project and other wind energy projects in South Dakota and (2) assist the Commission in understanding the information presented by Dakota Range 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 farms on real property Value?

A: As of the effective date of my direct testimony, I'm not aware of any study that properly addresses the potential value impacts, if any, on real property in South Dakota from a wind farm, turbine, tower or wind project.

Q: What exhibits have you reviewed in this docket?

A: I have read the documents below for the Dakota Range docket.

-Direct Testimony of Michael MaRous
-Exhibit 1, Market Impact Analysis
-Exhibit 2, Impact of Industrial Wind Turbines on Residential Property Assessments in Ontario 2012
-Exhibit 3, Impact of Industrial Wind Turbines on Residential Property Assessment in Ontario 2016
-Exhibit 4, Effects of Wind Turbines on Property Values in Rhode Island
-Exhibit 5, The Effects of Wind Turbines on Property Values in Ontario
-Exhibit 6, Relationship between Wind Turbines and Residential Property Values in Massachusetts.
-Appendix L to the Application, LBNL Study, The impact of Wind Power Projects on Residential Property Values in the United States

Q: In your opinion, does Dakota Range's valuation expert, Mr. MaRous meet the criteria to be a real property appraiser in South Dakota?

A: Yes. Mr. MaRous has indicated that he has applied for a temporary practice permit with the Appraisal Certification Program for the assignment with Dakota Range. 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: In your opinion, do the studies and testimony of the applicant adequately reflect the potential impact to the market value of properties in the vicinity of the proposed Dakota Range project?

A: It is my opinion the studies and testimony presented by Dakota Range provide a good starting point to gauge the potential impacts a wind tower, turbine or wind project can have on real properties values in South Dakota; however, the studies presented have limitations that need to be considered for their applicability to South Dakota.

First, the Market Impact Analysis presents limited market evidence from South Dakota to gauge the potential value impacts a wind project can have on real property values. Only one sale, from White, S.D. is analyzed and is located over four miles from a wind tower. Second, most of the studies (Exhibits 2-6) 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. Fourth, the studies do not reveal a consistent consensus among the authors about potential impacts of wind towers, turbines, and wind projects on property values:

- Exhibit 2, page 3 of 163, states, "*The 2012 CVA study also found there is no statistically significant impact on sale prices of residential properties in these market areas resulting from proximity to an IWT.*"
- Exhibit 3, page 7 of 39, states, "*MPAC concluded that 2016 Current Value Assessments of properties located within proximity of an IWT are assessed at their current value and are equitably assessed when compared to the assessments of properties that are not in proximity to IWTs*."
- Exhibit 4, page 4 of 29, states, "*Our principle finding is that the best estimate is that there is no price effect, and we can say with 90% level of confidence if there is a price effect, it is roughly 5.2% or less*. *Thus, while we cannot conclude for sure that there is no effect on housing prices, there is no statistical evidence of a large, adverse effect.*"
- Exhibit 4, page 7 of 29, states, "*Fortunately, better studies have been carried out recently. Heintzelman and Tuttle (2012) examine impacts of wind farms in three counties of Upstate New York using over 11,000 transactions and a specification that treats distance as a single continuous variable. They do find some significant price effects from proximity, though they are not consistent across counties. Their results imply that a newly built wind farm within a half mile of a property can decrease value by 8-35%.*"
- Exhibit 5, pages 26-27 of 42, states, "*while the results indicate a general lack of significantly negative effects across the properties examined in this study, this does not preclude any negative effects from occurring on individual properties. In fact, a recent appraiser's report on the impacts of*

Melancthon's wind turbines (Lansink 2012) found that the values of five specific properties in close proximity to turbines declined by up to 59%. While the set of properties examined in this study may not be representative of all open-market sales in close proximity to the turbines …., it provides evidence that values of specific properties may be negatively impacted, which supports the claims made by a number of local residents."

- Exhibit 6, page 3 of 49, states "*The results of this study do not support the claim that wind turbines affect nearby home prices*."
- Appendix L, page 209 of 222, states, "*Across all model specifications, we find no statistical evidence that home prices near wind turbines were affected in either the post-construction or post-announcement/preconstruction periods*. *Therefore, if effects do exist, either the average impacts are relatively small (within the margin of error in the models) and/or sporadic (impacting only a small subset of homes)."*

What is particularly noteworthy about the studies cited above, is that some of the conclusions indicate there could well be a potential value impact to properties near a wind project. In light of each of the above studies, a reader could conclude the issue is unanswered. That is why it is essential to have credible market evidence from South Dakota to determine the effects of wind projects on real property values.

Q: Is it is your opinion the studies presented by Dakota Range are directly applicable to South Dakota?

A: It is my opinion that any conclusions presented about the potential impacts of wind projects in South Dakota need to be supported by credible market evidence from South Dakota, in addition to evidence from other applicable markets. The information provided by Dakota Range lacks research to answer questions about potential value impacts in South Dakota.

Q: Can you explain some of the limitations to a statistical study that uses the hedonic regression method that have been presented by Dakota Range?

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: What is the methodology that is required for a case-by-case study beyond a hedonic method?

A: The general approach of this study would identify and examine a population of arm's length transactions involving properties within a wind energy project area in South Dakota. The general steps for the study would be: 1) Identify properties affected by a South Dakota wind energy project since the project first became operational; 2) Organize the properties into common ownership and property types; 3) Research the chain of title for each property ownership from the first operational date of the wind project to current effective date of the study; 4) Study the title history to identify transfers in ownership that appear to be arm's length and qualify per South Dakota's definition of fair market value; 5) Conduct site inspections and interview buyers and sellers to establish the sales qualify as arm's length transactions, and if so, verify transaction details and gather information on terms of the sales, participant motivation and value effect of the wind project, if any; 6) For each sale, collect and verify data on comparable property sales not within the proximity of a wind energy project for comparison (unaffected sales); 7)

Conduct survey-based research with market participants as an alternative to statistical price analysis to estimate the potential impacts from a wind energy property; 8) Analyze the survey-based research, interview data and the market data to reach a conclusion in regards to the effect of the wind energy project or wind tower on the value of the applicable property types; 9) Prepare a work file of the research to support the analyses and conclusions; 10) Prepare a study report summarizing the research and findings. The study would include individual sale analysis for properties types affected by wind energy projects, including farm and ranch, residential, and rural residential.

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

A: While the Market Impact Analysis provides additional insight with case-by-case examples in Iowa, Minnesota and Illinois, the studies do not provide a qualified market sale from South Dakota that has been impacted by a wind project, tower or turbine. The study does include one example from South Dakota; however, I do not see the reasoning in using a sale that is over four miles from a wind tower as a comparable sale to measure the potential impacts from a wind project. In addition, there seems to be some inconsistencies with the sales data identified in the Market Impact Analysis that raises concerns about the applicability of the research. Some examples of concern are:

1. The sale price is not reported accurately. The Market Impact Analysis lists the 19937 473rd Avenue sale price as $169,500. The Brookings County

records & Brookings County MLS show the 19937 473rd Avenue sale price as $167,500.

2. The Market Impact Analysis does not provide any discussion about the proximity to the high-traffic Interstate corridor along the west property boundary.
3. The Market Analysis lists 5705 Rathum Loop as having a crawl space. Brookings County shows 5705 Rathum Loop as having a finished ¾ basement with 800 square feet of finish in the lower level.
4. 19937 473rd Avenue is located on a gravel road and in rural setting 13 miles north of Brookings. 5705 Rathum Loop is on the east edge of Brookings on a solid surface road and would be considered within the City of Brookings real estate market.

If the facts upon which the conclusions are based are inaccurate, the conclusions may be inaccurate. A Market Impact Analysis requires a stronger sales population from South Dakota to provide credible market evidence.

Q: Did you fact-check the data used in the other paired sales provided in the Market Impact Analysis similar to Brookings County No. 1 sale? (Freeborn No.1, Handcock No.1, Macon No. 1, & Logan No.1)

A: No, I did not. However, I did find the statement on page 22 of Exhibit 1, for the Macon County residential paired sale, most peculiar: *"The broker stated that the turbine being installed proximate to the property is a possible reason for the quick*

sale at a higher price, so having a turbine close to this property potentially had a positive effect on the sale."

Q: Do you agree with the relevancy of relying on interviews with South Dakota Assessors to support impacts on real property values near wind towers, turbines or wind projects?

A: I work with many assessors across South Dakota daily, and they are great at what they do, which is assessing mass real property for the purpose of fair and equal taxation. Assessors are not focused on assessing the individual market values of properties nor the influences a property can have from different market conditions. For example, agricultural property for assessment in South Dakota is valued based on a soil productivity rating. This rating or multiplier is applied to the property's production capabilities to determine the assessed value. The assessment process does not consider conditions that could impact individual value, whether positive or negative, such as a transmission line, wind tower, mineral rights or payments paid to landowners from a wind tower lease. Mass appraisal techniques are used for assessing thousands of properties in the county for taxation, not determining if an individual property shows a negative or positive influence from an externality. Assessor interviews are not substantively valid in determining the negative impacts from a wind project.

Q: Do county assessors and credentialed appraisers have the same educational and experience requirements in South Dakota?

A: No, they do not. Assessors are not credentialed appraisers in South Dakota. County assessors are part of the state's Property Tax Division which is responsible for overseeing the tax system. To be hired as a county assessor, there are no qualifications or experience requirements in appraisal. The Department of Revenue does require the county assessor to attend training classes conducted by the state within one year of being hired, but these requirements are completely different from the criteria to become a credentialed appraiser in South Dakota.

Q: What claims did the Applicant make regarding market sales from South Dakota that have been impacted by a wind tower, turbine, or wind project?

A: The Applicant made the following claims regarding market sales in South Dakota:

- Exhibit 1, Market Impact Analysis, Page 11, states "*The only sale found in South Dakota that is located in the general market area of a wind farm, based on data research from the entire state, was a residence within four miles to the Buffalo Ridge Wind Farms in nearby Brookings County.";*
- MaRous Testimony, Page 4, Lines 6 - 12, states "*I reviewed sales transactions in seven northeastern counties in South Dakota to try to identify matched paired sales to use for comparison…. However, of the sales reviewed, only one rural residential property sale was near a wind farm, and that property, located in Brookings County, South Dakota, was nearly four*

miles away from a turbine. As a result, the sale was not close enough to a wind turbine to use in a proximate/not proximate paired sales comparison."; and

- Exhibit 1, Market Impact Analysis, Page 27, states *"I was unable to discover any sales of South Dakota farmland in which the transaction included a wind turbine …"*

Q: Are you aware of any market sales of real property in South Dakota that have sold near a wind tower, turbine or wind project?

A: Yes. Arm's length sales influenced by wind projects do exist in East River South Dakota. In an afternoon, here is what my research assistant and I found for sale evidence in Brookings County. This is not an exhaustive search of the South Dakota counties with wind projects, nor has a complete sales analysis been developed. Our research was limited to using the internet at my office and the Brookings County website as a research tool:

- **Sale BK1** Elkton, S.D. -- 2003 ranch acreage with eight acres. Listing price $218,000. Sale price $183,000. Arm's length sale managed by broker. Encompassed by 14 wind turbines circling the property. Tower #1 1,200 +/- feet to the east. Tower #2 5,000 +/- feet to the northeast. Tower #3 3,800 +/- feet to the north. Tower #4 665 +/- feet to the north. Tower #5 4,300 +/- feet to the northwest. Tower #6 5,000 +/- feet to the northwest. Tower #7 800 +/- feet west. Tower #8 2,700 +/- feet west. Tower #9 4,500 +/- feet southwest. Tower #10 3,500 +/- feet southwest. Tower #11 3,600 +/- feet southeast. Tower #12 750 +/- feet southeast. Tower #13 2,400 +/- feet southeast. Tower #14 4,000 +/- feet southeast.

- **Sale BK2** Toronto, S.D. – 1998 1.5 Story acreage with 10 acres. Purchased for $234,900. Listed for $339,900 six years later after completion of nearby wind project. Reduced listing price to $279,000 after market exposure and

no offers. Final sale price of $235,000. Arm's length sale managed by broker. Encompassed by 16 wind turbines. Tower #1 890 +/- feet northwest. Tower #2 1,700 +/- feet northwest. Tower #3 2,700 +/- feet northwest. Tower #4 3,600 +/- feet northwest. Tower #5 4,600 +/- feet northwest. Tower #6 5,400 +/- feet southwest. Tower #7 4,500 +/- feet southwest. Tower #8 3,800 +/- feet southwest. Tower #9 2,800 +/- feet southwest. Tower #10 2,400 +/- feet south. Tower #11 2,100 +/- feet southeast. Tower #12 2,500 +/- feet southeast. Tower #13 3,600 +/- feet southeast. Tower #14 4,500 +/- feet. Tower #15 5,800 +/- feet southeast. Tower #16 7,000 +/- feet southeast. Sale verification confirmed with Brian Gatzke, Northern Plains Appraisal in Brookings. Interview with seller indicated the sale terms were negatively impacted by the proximity to wind towers. Buyer paid a reduced price because of the proximity of the turbines and negotiated with seller not to sign a wind tower lease on adjacent farmland owned by seller within proximity to the residence. See sale BK2.5.

- **Sale BK2.5** Elkton, S.D. – 16.95 acres of tillable cropland with a soil productivity rating of 86. Sold for $50,000 or $2,950 per acre. 16 wind turbines surround the farmland. No wind turbines located on the property. Tower #1 750 +/- feet northwest. Tower #2 1,600 +/- feet northwest. Tower #3 2,500 +/- feet northwest. Tower #4 3,500 +/- feet northwest. Tower #5 4,500 +/- feet northwest. Tower #6 5,400 +/- feet southwest. Tower #7 4,500 +/- feet southwest. Tower #8 3,750 +/- feet southwest. Tower #9 2,700 +/- feet southwest. Tower #10 2,400 +/- feet south. Tower #11 1,900 +/- feet south. Tower #12 2,300 +/- feet southeast. Tower #13 3,500 +/- feet southeast. Tower #14 4,400 +/- feet. Tower #15 5,700 +/- feet southeast. Tower #16 6,700 +/- feet southeast. Sale verification confirmed with Brian Gatzke, Northern Plains Appraisal in Brookings. Interview with seller indicated they had to cancel wind lease agreement per negotiation with buyer of sale BK2. Arm's length sale managed by broker.

- **Sale BK3** Elkton, S.D. – 1918 Two-story acreage with 14.28 acres. Listing price $189,900. Sale price $175,000. Arm's length sale managed by broker. Surrounded by 17 wind turbines. Tower # 1 2,000 +/- feet north. Tower #2 2,800 +/- feet northwest. Tower #3 3,600 +/- feet northwest. Tower #4 4,200 feet +/- northwest. Tower #5 4,300 +/- feet southwest. Tower #6 3,700 +/- feet southwest. Tower #7 2,700 +/- southwest. Tower #8 2,200 +/- feet southwest. Tower #9 1,500 +/- feet south. Tower #10 1,900 +/- feet southeast. Tower #11 3,400 +/- feet southeast. Tower #12 8,500 +/- southeast. Tower #13 7,400 +/- feet southeast. Tower #14 6,400 +/- feet east. Tower #15 4,000 +/- feet east. Tower #16 2,100 +/- northeast. Tower #17 875 +/- feet northeast.

- **Sale BK4** Toronto, S.D. – 1989 Ranch acreage with 13 acres. Listing price $569,900. Sale price $530,000. Arm's length sale managed by broker. Nine wind turbines located south and east. Tower #1 10,500 +/- feet east.

Tower #2 9,200 +/- feet east. Tower #3 7,700 +/- feet southeast. Tower #4 6,500 +/- feet southeast. Tower #5 5,400 +/- feet southeast. Tower #6 4,100 +/- feet southeast. Tower #7 3,100 +/- feet southeast. Tower #8 2,400 +/- feet southeast. Tower #9 1,800 +/- feet south, southeast.

- **Sale BK5** Elkton, S.D. – 1936 Two-story with 6.95 acres. Purchased for $215,000. Sold four years later for $190,000. $25,000 less than previous purchase price or depreciation of approximately -11.6%. Both sales were advertised and managed by a broker. Four turbines located east, north and west. Tower #1 2,000 +/- feet northeast. Tower #2 3,600 +/- feet north. Tower #3 745 +/- feet west. Tower #4 2,700 +/- feet west.

- **Sale BK6** White, S.D. – 80 acres of productive cropland. Sold at public auction for $340,000 or $4,250 per acre. According to the auction flyer, there were 66.8 tillable acres per FHA maps. Property has a wind energy road easement across property to access turbine located just east of the northeast corner. Road access easement payment of $2,400 per year. There is no wind tower on the property; however, eight turbines surround the farm. Tower #1 200 +/- feet east. Tower #2 2,000 +/- feet northwest. Tower #3 7,900 +/- feet northwest. Tower #4 800 +/- feet west. Tower #5 3,300 +/- feet west. Tower #6 5,000 +/- feet west. Tower #7 4,400 +/- feet southwest. Tower #8 1,300 +/- feet southwest.

- **Sale BK7** Elkton, S.D. – 1992 ranch acreage with 13.35 acres. Sold for $180,000. Thirteen wind turbines surround the property. Tower #1 1,800 +/- feet north. Tower #2 2,500 +/- feet northeast. Tower #3 3,300 +/- feet northeast. Tower #4 4,200 +/- feet northeast. Tower #5 5,200 +/- feet northeast. Tower #6 6,700 +/- feet east. Tower #7 8,500 +/- feet east. Tower #8 7,900 +/- feet southeast. Tower #9 6,000 +/- feet southeast. Tower #10 3,900 +/- feet southeast. Tower #11 3,000 +/- feet southeast. Tower #12 1,700 +/- feet southeast. Tower #13 1,100 +/- feet south. Preliminary review of the Warranty Deed indicates an arm's length sale.

- **Sale BK8** Elkton, S.D. – 158 acres of productive cropland. Sale price $493,750 or $3,125 per acre. Arm's length sale. Seller partitioned two, one-acre tracts with two wind towers from the 160-acre quarter. Seller retained wind energy lease and access rights by easement. Buyer purchased cropland encumbered with two wind towers and access road crossing the north half of property. Fourteen wind turbines surround the property, including two wind turbines directly located within the property boundaries. Tower #1 2,000 +/- feet northeast. Tower #2 3,500 +/- feet northeast. Tower #3 5,300 +/- feet northeast. Tower #4 7,300 +/- feet northeast. Tower #5 5,800 +/- feet east. Tower #6 7,000 +/- feet east. Tower #7 4,400 +/- feet east. Tower #8 2,500 +/- feet southeast. Tower #9 780 +/- feet southeast. Tower #10 6,300 +/- feet southeast. Tower #11

1,500 +/- feet southeast. Tower #12 560 +/- feet south. Tower #13 & #14 are located within the north half of the 160-acre quarter.

- **Sale BK9** Elkton, S.D. – 152 acres of productive cropland. Sale price $958,000 or $6,302 per acre. Arm's length sale. Sale encumbered by two wind turbines with a wind tower lease. Thirteen wind towers surrounding the property. Tower #1 1,500 +/- feet north. Tower #2 1,700 +/- feet northwest. Tower #3 2,500 +/- feet northwest. Tower #4 4,000 +/- feet northwest. Tower #5 2,700 +/- feet west. Tower #6 4,800 +/- feet southwest. Tower #7 770 +/- feet south. Tower #8 3,500 +/- feet south. Tower #9 2,000 +/- feet south. Tower #10 2,900 +/- feet southeast. Tower #11 2,400 +/- feet southeast. Tower #12 2,200 +/- feet northeast. Tower #13 3,400 +/- feet northeast.

- **Sale BK10** Elkton, S.D. – 482 acres of productive cropland and small area of pasture land. Sale price of $1,720,000 or $3,568 per acre. Arm's length sale. Sale included a wind energy lease and wind easement for one tower. Seventeen wind turbines surround the property. Tower #1 2,900 +/- feet northwest. Tower #2 1,900 +/- feet northwest. Tower #3 990 +/- feet north. Tower #4 800 +/- feet north. Tower #5 900 +/- feet north. Tower #6 1,200 +/- feet northeast. Tower #7 1,900 +/- feet northeast. Tower #8 800 +/- feet east. Tower #9 4,500 +/- feet northeast. Tower #10 1,700 +/- feet east. Tower #11 1,600 +/- feet southeast. Tower #12 5,100 +/- feet east. Tower #13 7,100 +/- feet east. Tower #14 5,500 +/- feet southeast. Tower #15 4,200 +/- feet southeast. Tower #16 275 +/- feet south. Tower #17 1,500 +/- feet west.

- **Sale BK11** Elkton, S.D. – 224 acres of productive cropland. Sale price $1,428,137 or $6,375 per acre. Arm's length sale. No wind towers within property boundaries; however, ten wind turbines in the vicinity. Tower #1 4,500 +/- feet west. Tower #2 3,200 +/- feet west. Tower #3 2,200 +/- feet southwest. Tower #4 1,700 +/- feet southwest. Tower #5 3,800 +/- feet south. Tower #6 2,100 +/- feet south. Tower #7 3,000 +/- feet southeast. Tower #8 3,500 +/- feet south. Tower #9 4,300 +/- feet south. Tower #10 3,000 +/- feet south.

In addition to using the county website to search sales in Brookings County, I used the internet to research auction listings and below are my findings.

- **Sale BK 12,** Elkton, S.D. – Located just east of the South Dakota/Minnesota border. 161.92 pasture acres currently advertised for upcoming 2018 public auction. 109.30 acres of CRP expiring in fall of 2018. Two wind turbines on the property with annual wind lease payment. Wind lease payments for 2017 at $13,011, 2016 at $12,880, 2015 at $12,438 and 2014 at $12,360.

Two wind and access easements encumber the property. Seven wind towers surround the farm. Tower #1 100 +/- feet west. Tower #2 2,000 +/- feet west. Tower #3 2,900 +/- feet northeast. Tower #4 900 +/- feet east. Tower #5 2,900 +/- feet southeast. Tower #6 1,800 +/- feet south. Tower #7 1,700 +/- feet southwest.

- **Sale JR 13**, Wessington Springs, S.D. – 800 acres of cropland and pasture land. Sold at public auction in four separate tracts. Tracts 1, 2 & 3 sold to one buyer for $1,560,000 or $3,250 per acre. Tracts 1, 2 & 3 included 480 acres with 439 tillable acres. Tract 4 sold to another buyer for $896,000 or $2,800 per acre. Tract 4 included 320 acres of rough pasture. Tract four was encumbered by a wind tower easement and wind tower lease payment. Aerial shows a transmission line crossing from northwest to southeast. 50-year lease terms with 1% increase per year, with 41 years remaining. Broker interview stated tract 4 sold for a premium because of the wind lease payments.

Exhibit_DAL-2 provides an aerial map of the above referenced sales. These sales do not constitute a study to support a conclusion, are in the preliminary stages of development, and require a scope of work as previously described in my testimony. As demonstrated by the research, it seems there is credible market evidence in South Dakota that can answer the questions about the potential impacts of wind projects on South Dakota real property values.

Q: What is your opinion about the potential impacts of a wind project in South Dakota based upon your initial research?

A: The sales I've identified in South Dakota are too limited and unverified to support a conclusion on potential impacts from a wind project. The limited market evidence did raise concerns, as it shows there could be potential issues for residential properties in proximity to a wind project. Also, I find the wind lease payments reported with sale BK12 and JR13 to be a potential benefit to the property because of the income stream. These hypotheses would need to be

supported with further market sale evidence, interviews, verification and research. The point of the sales illustrations isn't an attempt to draw unsupported conclusions from limited research; they are to show that there is market evidence in South Dakota that will answer the questions about potential impacts on property values in the vicinity of a wind project.

Q: Are you suggesting that it would be necessary to conduct a market study to include all operating wind projects in South Dakota?

A: If the commission wants a comprehensive study applicable to all of South Dakota, I recommend the thirteen wind projects be included in the analysis. However, if research identifies a strong set of sales data within a region of South Dakota, it might not be necessary to extend the study to the thirteen operating wind projects in South Dakota.

Q: What would be the timeline necessary to prepare such a study?

A: Depending on the scope of work and project area selected, approximately six months would be an anticipated timeline for project completion.

Q: What is the approximate cost of preparing such a study?

A: Cost depends on the scope of work agreed to with the client and the wind projects identified for the study. In South Dakota, a comprehensive study of this type would be required to have an extensive level of quality and research that could withstand scrutiny from courts and peer review, as well as assure the public that

due diligence has been done to answer the questions about impacts on property values.

Q: Why did you not prepare a study like you just described?

A: I had several discussions about this with Staff. Unfortunately, it was impossible to properly conduct a study in the time provided by statute. As I stated previously, it would take six months to complete an accurate study. This would not include the time it would take to contract for services, conduct discovery and do necessary investigation, prepare testimony, and participate in an evidentiary hearing.

Q: Does this conclude your testimony?

A: Yes.