

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

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

**SD PUC DOCKET EL18-026**

**PRE-FILED SUPPLEMENTAL DIRECT TESTIMONY OF MICHAEL MAROUS  
ON BEHALF OF PREVAILING WIND PARK, LLC**

August 10, 2018

**I. INTRODUCTION AND QUALIFICATIONS**

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

A. My name is Michael MaRous. I am the owner and president of MaRous & Company. My business address is 300 South Northwest Highway, Suite 204, Park Ridge, Illinois 60068.

**Q. Briefly describe your educational and professional background.**

A. I graduated from the University of Illinois at Urbana-Champaign with a B.S. in Urban Land Economics and began my career working with a Chicago real estate appraisal and consulting firm. I founded MaRous & Company in 1980. I have a South Dakota State Certified General Appraisal License, No. 1467CG.

During my career, I have appraised real estate located in more than 25 states and reflecting a total value in excess of \$15 billion. Properties include general industrial, commercial, and residential parcels, as well as vacant land and also specialized properties and interests, including air/development rights, billboards, cemeteries, easements, golf courses, gambling facilities, schools, streets, tank farms, waste transfer stations, utility and railroad rights-of-way, and energy-related projects.

Energy-related projects include the Dakota Range Wind Project in Codington County and Grant County, Deuel Harvest Wind Farm in Deuel County, and the Crocker Wind Farm in Clark County, all in South Dakota; the Grand Ridge V and Otter Creek wind farms in LaSalle County, the Pleasant Ridge Wind Farm in Livingston County, the Walnut Ridge Wind Farm in Bureau County, the McLean County Wind Farm in McLean County, and the Twin Forks Wind Farm in Macon County, all in Illinois; the Freeborn Wind Farm in Freeborn County, Minnesota; the Ida II Wind Farm in Ida County, the Palo Alto County Wind Farm in Palo Alto County, both in Iowa; the Orangeville Wind Farm in Wyoming County, New York; the Dorchester County Solar Farms in Dorchester County, Maryland; and the

Badger Hollow Solar Farm in Iowa County, Wisconsin; and proposed natural gas-fired electric plants in various locations.

My statement of qualifications is included at the end of the August 10, 2018 Market Impact Analysis ("Market Analysis") for the Prevailing Wind Park Project attached as Exhibit 1.

**II. OVERVIEW**

**Q. What is your role in the Prevailing Wind Park Energy Facility ("Project")?**

A. I was retained by Prevailing Wind Park, LLC ("Prevailing Wind Park") to prepare an independent market analysis of the potential impact, if any, the Project would have on the value of the properties in the general area of the Project in Bon Homme, Hutchinson and Charles Mix counties ("Project area"). Specifically, the analysis addressed the question of whether market data indicates that the Project will have an effect on the value of residential uses and/or agricultural land in proximity to the proposed wind turbines. When I use the phrase "proximity to wind turbines," I generally mean turbines within five times the tip height of a wind turbine.

**Q. What is the purpose of your Supplemental Direct Testimony?**

A. The purpose of my testimony is to provide information specific to South Dakota and the Project area in Charles Mix, Bon Homme, and Hutchinson counties with respect to the potential impact of wind turbines on rural residential and agricultural property.

**Q. Have such studies been conducted previously in South Dakota?**

A. I conducted similar studies in connection with the Dakota Range Wind Project and Crocker Wind Farm Project. Those studies were filed with the South Dakota Public Utilities Commission ("Commission") in Docket Nos. EL18-003 ("Dakota Range") and EL17-055 ("Crocker"), respectively.

The potential impact, if any, which wind farms have on property values was also addressed in research performed by Mr. David Lawrence on behalf of the Commission Staff in the Dakota Range proceeding. Mr. Lawrence's research focused on the potential impacts, if any, that wind towers have on rural residential and agricultural properties, respectively, in Brookings County.

**Q. Have peer-reviewed studies been conducted previously in South Dakota?**

A. There are no peer-reviewed studies that have studied South Dakota properties. I was also unable to locate any other peer-reviewed market analysis specific to South Dakota wind farms. Large-scale peer-reviewed studies have evaluated the potential impact of wind turbines on property values outside of South Dakota. While these studies are not specific to South Dakota, they are authoritative studies that have produced consistent results. In my report, and in my testimony, I address how these studies support my analysis.

**Q. Please identify the sections of the Application that your testimony supports.**

A. My testimony supports Section 20.1.2.3, Property Value Impacts and the associated appendices, Appendix P (2009 Berkeley Property Values Study) and Appendix Q (2013 Berkeley Property Values Study).

**Q. What exhibits are attached to your Supplemental Direct Testimony?**

A. In addition to my Market Analysis, Exhibit 1, I am sponsoring the following exhibits:

- Exhibit 2: Brian Guerin, Jason Moore, Jamie Stata, and Scott Bradfield (2012). Impact of Industrial Wind Turbines on Residential Property Assessment in Ontario: 2012 Assessment Base Year Study. Municipal Property Assessment Corporation.
- Exhibit 3: Jason Moore, Jamie Stata, and Scott Bradfield (2016). Impact of Industrial Wind Turbines on Residential Property Assessment in Ontario: 2016 Assessment Base Year Study. Municipal Property Assessment Corporation.

- Exhibit 4: Corey Lang and James Opaluch (2013). Effects of Wind Turbines on Property Values in Rhode Island. Environmental and Natural Resource Economics, University of Rhode Island.
- Exhibit 5: Richard J. Vyn and Ryan M. McCullough (2013). The Effects of Wind Turbines on Property Values in Ontario: Does Public Perception Match Empirical Evidence? University of Guelph, Canada.
- Exhibit 6: Carol Atkinson-Palombo and Ben Hoen (2014). Relationship between Wind Turbines and Residential Property Values in Massachusetts. University of Connecticut and Lawrence Berkeley National Laboratory.
- Exhibit 7: Surrebuttal Testimony of David Lawrence on Behalf of the Staff of the South Dakota Public Utilities Commission, *In re 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*, Docket No. EL18-003, (June 8, 2018).

### **III. MARKET ANALYSIS FOR PREVAILING WIND PARK PROJECT**

#### **Q. How did you familiarize yourself with the Project?**

- A. To familiarize myself with the Project, I reviewed documents relating to the proposed Project, including the Application filed in this matter, engineering information, and several pre-filed testimonies. I reviewed the proposed layout and representative turbine models in the Application and the applicable regulations and zoning ordinances.

As a function of my work, I am generally familiar with the current market for real estate toward eastern South Dakota. To further develop my knowledge of the market, and specifically the market in and around the Project area, I researched property values and market conditions through a variety of methods (e.g.,

interviews with market participants, survey of assessors, public records, and online research). I also visited the Project area on June 14, 2018.

**Q. What data did you evaluate in conducting your market value analysis?**

A. The Market Analysis brings together several different data sources and ways of evaluating the potential impacts of wind turbines on properties. As detailed further in the Market Analysis, I evaluated the footprint of the Project, as well as the surrounding area, and reviewed rural residential and agricultural property sales data. I also researched agricultural land values in Bon Homme, Charles Mix, and Hutchinson counties and in other counties in South Dakota in which wind farms are located, and looked at market trends for both agricultural and residential land for the past five years. I also considered the economic impact on the larger community by the approval of the use as proposed. In addition, I considered the opinions of assessors in eight South Dakota counties with active wind projects. In addition to analyzing South Dakota-specific information, I considered my prior analyses for wind projects in similar counties in Minnesota, Iowa, and Illinois, including paired sales and discussions with assessors in counties with active wind farms. I also considered the analysis of Mr. Lawrence in the Dakota Range proceeding, attached as Exhibit 7. Finally, I reviewed relevant literature on wind farm property value impact analyses previously conducted and interviewed local real estate professionals, including brokers and six auctioneers throughout South Dakota.

**Q. Could you discuss in more detail the matched pair analysis you conducted?**

A. Yes. Broadly speaking, the purpose of a matched pair (or paired sales) analysis is to determine whether and how a particular characteristic or factor affects, if at all, the value of real estate. In this case, the factor being reviewed is a proximate wind turbine. To conduct the matched pair analysis in this instance, I needed to identify sales that were proximate to wind turbine(s) and sales that were not proximate to wind turbine(s). After those sales are identified, then an appraiser like me can go through the process of comparing the two properties, making adjustments as

appropriate to account for the properties' differences, and determining, based on the data, whether proximity to wind farms affected the prices.

To gather the necessary information to conduct a matched pair analysis in this case, I reviewed data on the market for single-family houses in the area of the proposed wind farm and from other areas in the county from public sources, and from the Bon Homme County, Charles Mix County, and Hutchinson County public records, and public records from nine other counties in South Dakota.<sup>1</sup> The research throughout Bon Homme County, Charles Mix County, and Hutchinson County indicated that there was a relative lack of sales proximate to wind turbines in these counties.

To bolster the quantity and quality of the data to be analyzed, I looked beyond Bon Homme, Charles Mix, and Hutchinson counties. The most substantial sales data found in South Dakota from locations in the general market area of a wind farm, based on data research from the entire state, were residences proximate to the Buffalo Ridge Wind Farms in Brookings County. Mr. Lawrence first identified six proximate residential sales in Brookings County during the Crocker proceeding. I conducted further research to determine if there were any additional proximate sales using the Beacon subscription service, another source of property sales information for Brookings County. I concluded that the six sales Mr. Lawrence had identified were appropriate sales for purposes of my analysis. I then researched Brookings County sales data to determine whether there was a comparable non-proximate sale for each that could be used to conduct a paired sales analysis. I found six non-proximate sales and conducted a paired sales analysis using six pairs of property sales in Brookings County.

I also reviewed matched pair sales data in rural areas of Minnesota, Iowa, and Illinois.

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<sup>1</sup> Deuel County, Clark County, Codington County, Grant County, Aurora County, Brookings County, Day County, Hyde County, and Jerauld County.

**Q. What were your conclusions from the matched pair analysis?**

- A. As detailed in the Market Analysis, there is no record evidence to support a conclusion that proximity to wind turbines affects residential property values. In all cases, when I evaluated the two properties in detail and made appropriate adjustments for factors that can affect a property's value, such as building size, building type and quality, lot size, location, utilities and sale date, the prices of the two properties were essentially the same on a per square foot value. The value of agricultural properties with turbine leases is positively affected.

These conclusions are consistent with what I have studied on other wind farm projects in South Dakota, Minnesota, Iowa, and Illinois. The data and conclusions in the Market Analysis are also consistent with the similar data and conclusions provided in the Surrebuttal Testimony of Mr. Lawrence that is attached at Exhibit 7.

**Q. Do your conclusions align with the other data you considered in your Market Analysis?**

- A. Yes. The data and conclusions in the paired sales analysis are consistent with the information that we learned from interviewing market participants such as local real estate professionals, interviewing assessors, and reviewing peer-reviewed literature, as well as with the work done on behalf of Commission Staff by Mr. Lawrence, and with my own prior work.

**Q. Your company interviewed local real estate professionals, auctioneers, and brokers in South Dakota to gather information about how wind turbines affected values of proximate properties, if at all. Please provide an overview of your contacts with local real estate professionals.**

- A. We contacted local real estate professionals to discuss market conditions, specific market transactions, and to investigate whether they had experience with, or knowledge of any impact of wind farms on residential property values. Interviews were conducted with six auctioneers throughout South Dakota. A summary of



those interviews is included in the Market Analysis. Their experience echoes my report findings and conclusions, mainly that turbine leases have a positive effect on the values of agricultural land under wind leases and that there is no market evidence that wind farms negatively impact the values of properties in proximity to turbines.

**Q. Your company also interviewed assessors in South Dakota, Iowa, Illinois and Minnesota regarding the potential property value impacts of wind farms. What was the purpose of those interviews?**

A. My interviews of assessors in South Dakota was intended to be another data point for my overall analysis of the potential impact of wind turbines on property values. Appraisers routinely and reasonably rely upon information provided by assessors to prepare market analyses and appraisals and I believe it was appropriate to do so here. The assessors have experience in assessing properties in counties where wind farms are located. The assessors' interactions with landowners and knowledge of landowner complaints about valuation and formal value appeals is valuable data and indicates that wind farms have not resulted in reduced assessments on proximate properties.

**Q. Please provide an overview of the assessors survey effort you completed.**

A. In South Dakota specifically, we surveyed assessors in eight South Dakota counties that each had more than 25 operational wind turbines: Aurora County, Brookings County, Campbell County, Charles Mix County, Day County, Hyde County, Jerauld County, and McPherson County. We spoke with assessors in each county to gather information on their experience regarding the impact of wind farms upon market values and/or assessed values of surrounding properties. We conducted similar interviews of assessors in 26 counties in Iowa, 8 counties in Minnesota, and 18 counties in Illinois.

**Q. You interviewed assessors in eight counties in South Dakota where there are more than 25 wind turbines.<sup>2</sup> Why did you select these counties when there**

**are 12 counties that have operating wind turbines in the state of South Dakota?**

- A. I chose to focus on wind farms that had more than 25 wind turbines to better match the scale of the up to 61-turbine Prevailing Wind Park Project both in number of turbines and project footprint.

The sizes of the wind farms in the 12 counties in South Dakota with wind turbines vary greatly. Two of the 12 counties have just two wind turbines (Brule County) or three wind turbines (Miner County). Two other counties have wind farms that are half the size of my study threshold: Hand County has 10 turbines and Clark County has 11 turbines belonging to the Oak Tree Farm which was developed by an upper end Hunt Club and Inn. The Oak Tree Wind Farm is adjacent to their lodge, with meeting and wedding facilities. This is one of the more desirable if not the most valuable recreational facility in Clark County. I concluded that these wind farms were not good comparables to the Prevailing Wind Park Project because of their smaller sizes.

That leaves eight counties with more than 25 wind turbines. As I noted, I included all eight of those counties in the South Dakota Assessors Survey contained in my Market Analysis.

**Q. Knowing that assessors do not have to be licensed as appraisers for their work, why do you think the assessors are nevertheless a meaningful source of information?**

- A. While assessors may have less formal training than appraisers, they are required to complete specified property valuation training, and also have personal knowledge of the market in their area. A county assessor must obtain the Certified Appraiser Assessor designation from the South Dakota Department of Revenue.<sup>3</sup> To be eligible for this certification, they must have "at least one year of full-time

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<sup>2</sup> Aurora County, Brookings County, Campbell County, Charles Mix County, Day County, Hyde County, McPherson County, and Jerauld County.

<sup>3</sup> SD Laws 10-3-1.1; SD Laws 10-3-1.2; SD Admin. Rules 64:02:01:14.

experience in the assessing and appraising field, have completed and passed the required training prescribed in § 64:02:01:16, and ha[ve] passed the certification examination.”<sup>4</sup> Assessors also have first-hand knowledge of property values in their communities. They receive input on factors influencing value and know of complaints from parties protesting the assessor’s opinion of market value. As a result, assessors are a helpful source of information for my Market Analysis.

**Q. What were the results of your assessor surveys?**

A. The South Dakota assessors and all other assessors interviewed reported that there was no market evidence to support a negative impact on residential property values as a result of the development of and proximity to a wind farm:

- In the past 18 months, two assessor’s offices have experienced a real estate tax appeal based upon wind farm-related concerns, but the appeals were denied by both counties, Aurora County and Campbell County.
- There had been no reductions in assessed valuations due to proximity to wind turbines.
- Residential assessed values had fluctuated consistently as influenced by market conditions, with no regard for proximity to a wind turbine.
- Virtually all assessors volunteered that the wind farms provided positive economic benefits to their counties and, in fact, had a positive impact on real estate values overall.
- County assessors consistently reported that whatever initial concern there may have been regarding property values during the planning and approval stages of the various wind farms, it dissipated after the wind farm was constructed. Further, county assessors repeatedly stated that county revenues and revenues to individual farms outweighed any initial concerns that residents had about the wind farms adjoining their communities.

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<sup>4</sup> SD Admin. Rules 64:02:01:05.

**Q. Please explain why you believe that sales and assessor data from Minnesota, Iowa and Illinois are relevant to the issue of whether the Project may impact property values in South Dakota.**

A. The wind farm areas I studied in Minnesota, Iowa, and Illinois are relevant to evaluating the potential impact of wind farms on property values in the Project area for several reasons. First, the areas are all in high wind areas and have similar agricultural economies (corn, soybeans, and livestock, including cattle, hogs, and poultry), similar demographics, and similarly low density (small acreage) rural residential properties. In these areas, rural land values are largely driven by productivity and many farmers are economically struggling. Second, the market participants (buyers) for agricultural land are similar in these areas, primarily local farmers and national investors. Third, the local economies are driven by the positive or negative of climate and economy for agricultural products. Fourth, the infrastructure is generally aged and school districts in particular are struggling to fund existing infrastructure, add quality teachers, and add new technology, which makes the areas less desirable to new residents. Fifth, there is low economic job potential in these areas and the best and brightest are not returning after high school, because of lack of infrastructure, area amenities, and limited job possibilities.

**Q. Based on your analysis, what conclusions did you reach?**

A. As detailed in my Market Analysis, I concluded that there was no market data indicating the Project would have a negative impact on either rural residential or agricultural property values in the area surrounding the Project. Further, market data from South Dakota, as well as from other states, supports the conclusion that the project will not have a negative impact on rural residential or agricultural property values in the surrounding area. In addition, for agricultural properties that host turbines, the additional income from the wind lease may increase the value and marketability of those properties. These conclusions are further supported by relevant peer-reviewed literature, as well as by my own decades of experience, my

recent work on similar issues in South Dakota, and the work done on behalf of the Commission's Staff by Mr. Lawrence in a recent proceeding.

I will address my review of the relevant peer-reviewed literature next, and then the recent work Mr. Lawrence did in connection with wind farm projects before the Commission.

**IV. PEER-REVIEWED LARGE-SCALE STUDIES**

**Q. The Application and the Market Analysis include a discussion of peer-reviewed studies, including the Lawrence Berkeley National Laboratory ("LBNL") studies. Can you please provide additional details regarding the LBNL studies?**

A. The 2009 and 2013 LBNL studies are included in Appendices P and Q of the Application.<sup>5</sup> LBNL is a member of the national laboratory system supported by the U.S. Department of Energy through its Office of Science. It is managed by the University of California and is charged with conducting unclassified research across a wide range of scientific disciplines. LBNL conducted regression studies on a nationwide basis in 2009 and 2013 to study the potential effects of the proximity of wind turbines on property values.

**Q. What methodologies did the LBNL Studies employ?**

A. The 2009 study included an analysis of 7,489 sales within 10 miles of 11 wind farms and 125 post-construction sales within one mile of a wind turbine. The 2009 study used rural settings and wind farms with more than 50 turbines. The 2013 study included 51,276 sales located in nine states and proximate to 67 wind farms, and 376 post-construction sales within one mile of a wind turbine. Like the 2009 study, all were located in rural settings and near wind farms of more than 50 turbines. The 2013 study "used a number of sophisticated techniques to control for

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<sup>5</sup> Ernest Orlando Lawrence Berkeley National Laboratory, *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis* (December 2009) and Ernest Orlando Lawrence Berkeley National Laboratory, *A Spatial Hedonic Analysis of the Effects of Wind Energy Facilities on Surrounding Property Values in the United States* (August 2013).

other potential impacts on home prices, including collecting data that spanned well before the wind facilities' development was announced to after they were constructed and operating. This allowed the researchers to control for any pre-existing differences in home sales prices across their sample and any changes that occurred due to the housing bubble."<sup>6</sup>

**Q. Please discuss the conclusions of the LBNL Studies.**

A. Neither study found statistical evidence that home values near wind turbines were affected. Specifically, with respect to the 2013 study, LBNL states that "[t]his study, the most comprehensive to-date, builds on both the previous Berkeley Lab study as well as a number of other academic and published United States studies, which also generally find no measureable impacts near operating turbines."<sup>7</sup>

**Q. Do you agree with the conclusions of the LBNL Studies?**

A. Yes. The studies found no statistically significant relationship between wind turbines and property value, which is consistent with my conclusions noted above.

**Q. Are there any other peer-reviewed studies that conclude that there is no significant evidence of negative impact on property values from wind turbines?**

A. Yes. There are several studies that, combined, reviewed more than 2,500 transactions within one mile of operating turbines. They all found no evidence of value impact.

**Q. Please describe these other studies.**

A. The studies I was referencing are summarized below:

- The Municipal Property Assessment Corporation's ("MPAC") studies on the Impact of Industrial Wind Turbines on Residential Property Assessment in

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<sup>6</sup> "No Evidence of Residential Property Value Impacts Near U.S. Wind Turbines, a New Berkeley Lab Study Finds" (August 27, 2013), <http://newscenter.lbl.gov/2013/08/27/no-evidence-of-residential-property-value-impacts-near-us-wind-turbines-a-new-berkeley-lab-study-finds/>.

<sup>7</sup> *Id.*

Ontario. This study was originally conducted in 2008 and updated in 2012 ("MPAC 2012") (attached as Exhibit 2) and 2016 ("MPAC 2016") (attached as Exhibit 3). The conclusions in both studies are similar: "there is no statistically significant impact on sale prices of residential properties in these market areas resulting from proximity to an IWT [Industrial Wind Turbine], when analyzing sale prices." Exhibit 2 at 6. Using 2,051 properties and generally accepted time adjustment techniques, MPAC "cannot conclude any loss in price due to the proximity of an IWT." Exhibit 2 at 30. Further, Appendix G of the MPAC 2012 study "Re-sale Analysis" states in the "Summary of Findings" that "MPAC's own re-sale analysis using a generally accepted methodology for time adjustment factors indicates no loss in price based on proximity to the nearest IWT." Exhibit 2 at 163 (Appendix G).

- Corey Lang and James Opaluch (2013). Effects of Wind Turbines on Property Values in Rhode Island. Environmental and Natural Resource Economics, University of Rhode Island. (Attached as Exhibit 4). Structured similarly to the LBNL Studies, this study included 48,554 total sales proximate to 10 wind farms, and 412 post-construction sales within one mile of a turbine. These wind farms were mostly small facilities in urban settings. The study included nuisance and scenic vista stigmas. The report stated, "Both the whole sample analysis and the repeat sales analysis indicate that houses within a half mile had essentially no price change . . ." after the turbines were erected. Exhibit 4 at 18. The study found no statistical evidence of a large, adverse effect of wind turbines on property values.
- Richard J. Vyn and Ryan M. McCullough (2013). The Effects of Wind Turbines on Property Values in Ontario: Does Public Perception Match Empirical Evidence? University of Guelph, Canada. (Attached as Exhibit 5). This study analyzed two wind farms in Melancthon Township, Ontario, Canada, using 5,414 total sales and 18 post-construction sales within one kilometer of a wind turbine. The study included nuisance and scenic vista stigmas. The study concluded that: "these results do not corroborate the

concerns regarding potential negative impacts of turbines on property values.” Exhibit 5 at 2.

Carol Atkinson-Palombo and Ben Hoen (2014). Relationship between Wind Turbines and Residential Property Values in Massachusetts. University of Connecticut and Lawrence Berkeley National Laboratory. (Attached as Exhibit 6). This study included 312,677 total sales proximate to 26 wind farms, and 1,503 post-construction sales within one mile of a wind turbine. These wind farms were located in urban settings and were primarily proximate to small wind farms. The study included wind turbines and other environmental amenities/disamenities (including beaches and open spaces/landfills, prisons, highways, and major roads) together, for nuisance stigma. “Although the study found the effects from a variety of negative features . . . and positive features . . . the study found no net effects due to the arrival of turbines.” Exhibit 6 at 3.

**V. RELEVANT INFORMATION FROM RECENT WIND PROJECTS IN SOUTH DAKOTA BEFORE THE COMMISSION**

**Q. Have you testified before the Commission regarding other wind projects in South Dakota?**

A. Yes. As noted above, I have performed analyses on the impact of wind farms on property values for multiple wind projects in South Dakota. For example, the Crocker (EL17-055) and the Dakota Range (EL18-003) proceedings. I offered testimony in both of those matters. My testimony, which was based on the in-depth analyses I performed, included my conclusion that there was no market evidence that proximity to a wind turbine adversely affected property values in those cases. My testimony in this case reaches the same conclusion and is supported by additional data.

**Q. Does the testimony offered by Mr. Lawrence in the Dakota Range proceeding align with your conclusions?**



A. Yes. Mr. Lawrence filed testimony in June of 2018 that aligns with my conclusions.

Specifically, Mr. Lawrence's research led him to conclude that, based on the evidence and research he had conducted,

(1) "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," Exhibit 7 at 5; and

(2) "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." Exhibit 7 at 6.

While Mr. Lawrence points out that additional research could be performed that would incorporate additional sales, his work, along with mine, demonstrate that anecdotes and/or similar assertions that wind projects decrease the value of nearby properties do not withstand scrutiny and are unsupported by data.

Mr. Lawrence's work also helped to demonstrate that allegations that the values of rural residential properties within the viewshed of a wind project are negatively affected are not supported by the data. The Rural Residential Transaction Summary Table at Exhibit 1 to Mr. Lawrence's testimony (which is attached as Exhibit 7 to my testimony) showed that seeing and/or hearing wind turbines does not reduce nearby properties' values:

Rural Residential Transaction Summary Table						
Transaction Reference	Property Type	Physical Evidence of Effects	Interview Evidence of Effects	Sales Evidence of Effects	Consistency of Sale Evidence with Interview Evidence	Overall Conclusion
BK1	Rural Residential	Yes	None	None	Consistent	No measurable effects
BK2	Rural Residential	Yes	None	None	Consistent	No measurable effects
BK3	Rural Residential	Yes	None	None	Consistent	No measurable effects
BK4	Rural Residential	Yes	None	None	Consistent	No measurable effects
BK5	Rural Residential	*None*	None	None	Consistent	No measurable effects
BK7	Rural Residential	Yes	None	None	Consistent	No measurable effects

\*\*Turbines were not in operation during the site visit of BK5. Winds light and variable. \*\*

Likewise, Mr. Lawrence’s work on agricultural properties suggests that the value of properties proximate to wind farms is not decreased and that the value of properties that host turbines is likely increased. See Exhibit 7 at 5-6. There is no data that supports the opposite conclusion.

**VI. CONCLUSION**

**Q. Do you have any concluding remarks?**

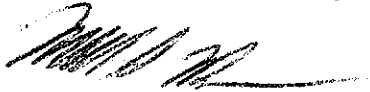
A. Yes. Having studied the potential impacts of wind farm projects on properties in South Dakota and across the Midwest, the data consistently shows that property values are not negatively impacted by proximate wind farm projects. As set forth above and in my Market Analysis, sales data, interviews with market participants, real estate professionals and assessors, peer-reviewed literature, and testimony on behalf of Commission Staff all consistently support the conclusion that there is

no record evidence to support a conclusion that proximity to wind turbines negatively affect proximate rural residential or agricultural property values.

**Q. Does this conclude your Supplemental Direct Testimony?**

A. Yes.

Dated this 10th day of August, 2018.



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Michael MaRous