

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DAKOTA RANGE I, LLC AND DAKOTA
RANGE II, LLC FOR AN ENERGY FACILITY PERMIT TO CONSTRUCT
A WIND ENERGY FACILITY

SD PUC DOCKET EL-18-003

PREFILED REBUTTAL TESTIMONY OF MICHAEL MAROUS
ON BEHALF OF DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC

May 21, 2018

I. INTRODUCTION

Q. Please state your name.

A. My name is Michael MaRous.

Q. Did you provide Direct Testimony in this Docket?

A. Yes. I submitted pre-filed testimony in this docket on April 6, 2018.

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to respond to the testimony of South Dakota Public Utilities Commission Staff ("Staff") witness David Lawrence. Specifically, I respond to his four general critiques of my Direct Testimony: 1) the applicability of the peer-reviewed studies to South Dakota; 2) alleged inaccuracies in my Market Impact Analysis, MaRous Direct Exhibit 1; 3) the persuasive merits of my assessor surveys; and 4) the availability of market sales relevant to assessing the potential impact of a wind turbine in proximity to a residence or agricultural property.

I also comment on the Prevailing Winds, LLC's Brookings County 2015 Property Value Survey attached to Mr. Mark Mauersberger's Rebuttal Testimony, Exhibit 1.

Q. What is your overall response to Mr. Lawrence's testimony?

A. I appreciate Mr. Lawrence's professional criticisms. Having had the opportunity to investigate and analyze the sales he identified, I believe his testimony and the data further support my conclusion that there is no market evidence that proximity to a wind turbine adversely affects South Dakota property values. This conclusion is also consistent with my prior testimony, as well as my four decades of experience as an appraiser, including my experience with evaluating the potential impact of wind turbines on property values throughout the Midwest.

Q. Are there any exhibits attached to your Rebuttal Testimony?

A. Yes. I am sponsoring the following exhibits:

- Exhibit 1: Table and Figure of South Dakota Wind Farms.
- Exhibit 2: Updated South Dakota Assessors Survey.
- Exhibit 3: South Dakota Auctioneer/Broker Survey.
- Exhibit 4: Brookings County Single-Family Residential Sales Summary from Lawrence Direct Data - BK 1-5 and 7.
- Exhibit 5: Supplemental Paired Sales Analysis—Residential Sales BK 1-5 and 7.

Q. Do you have any updates to your Direct Testimony?

A. Yes. I received my South Dakota State Certified General Appraisal license No. 1467CG, which is valid through September 30, 2018.

II. APPLICABILITY OF PEER-REVIEWED STUDIES TO SOUTH DAKOTA

Q. Mr. Lawrence criticizes the studies in your testimony because “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.” Lawrence Direct at 8. What is your response?

A. I agree with Mr. Lawrence’s general conclusion that some of the studies cited in the peer-reviewed literature I included with my testimony referenced other studies that indicated a possibility that wind turbines could impact property values. However, the studies Mr. Lawrence references regarding potential negative impact are generally not representative of the overarching conclusion of the peer-reviewed literature.

Q. Do you have any specific responses to the excerpts Mr. Lawrence cited on pages 7 and 8 of his testimony?

A. Yes. Mr. Lawrence takes six quotes from certain studies I provided. I included the studies in my testimony to provide a balanced overview of the peer-reviewed literature. These studies support my opinion that there is no definitive evidence in the literature to indicate that the Project will negatively impact the value of

agricultural or residential properties. None of the quotes detracts from my conclusion.

Mr. Lawrence quotes from five articles. The quotes from MaRous Direct Exhibits 2 (Geurin et al. 2012) and 6 (Atkinson-Palombo and Hoen 2014) expressly support a finding that there is no statistically significant impact on the sale prices of residential properties in proximity to wind turbines. The quote from MaRous Direct Exhibit 3 states only that assessed values of properties in proximity to wind turbines are equitably assessed.

Mr. Lawrence also cites to the Vyn and McCullough study, MaRous Direct Exhibit 5. The Vyn and McCullough study evaluated the impacts of 133 turbines in Melancthon Township on property values. Vyn and McCullough concluded:

The empirical results generated by the hedonic models, using three different measures to account for disamenity effects, suggest that these turbines have not impacted the value of surrounding properties.

MaRous Direct Exhibit 5 at 26. Mr. Lawrence then states that the researchers note the study “does not preclude any negative effects from occurring on individual properties.” Lawrence Direct at 7.

Vyn and McCullough then note the Lansink (2012) appraisal from which Mr. Lawrence quotes. Mr. Lawrence fails to include Vyn and McCullough’s criticism of the Lansink appraisal: the sales were not market sales and therefore may not be representative of the market—“the five properties in question were purchased by Canadian Hydro developers and resold after turbines had been constructed.” MaRous Direct Exhibit 5 at 27. Transactions involving the developers, who often pay premiums to secure their sites, do not provide a basis from which credible, fair market value comparisons may be drawn. In my opinion, the Lansink appraisal is not indicative of the market value impacts of a wind farm because of its limited, non-

market sales data. Further, the quoted language is not representative of the overarching conclusions of the article's authors.

The other article Mr. Lawrence cites – twice – is MaRous Direct Exhibit 4 by Lang and Opaluch, and he does so incompletely. The first quote from the study affirms my conclusion: “while we cannot conclude for sure that there is no effect on housing prices, there is no statistical evidence of a large, adverse effect.” Lawrence Direct at 7.

Lang and Opaluch, in their discussion of the literature, also describe a study in Upstate New York. Mr. Lawrence quotes a sentence stating that the Upstate New York study “impl[ies]” that a wind farm within a half mile of a turbine could impact value. However, Mr. Lawrence did not include the limitation for that study that Lang and Opaluch point out: “It is important to note, however, that the average distance to a turbine of a transaction in their data is over 10 miles, and they interpolate effects to close proximity.” MaRous Exhibit 4 at 7. In fact, Lang and Opaluch emphasize that the more persuasive study work is by Hoen, one of the authors of the LBNL studies:

The strongest research to date is a recent report from Hoen et al. (2013) [Exhibit 3], which updated Hoen et al. (2011). They collect over 50,000 transactions within 10 miles of wind farms spanning 27 counties in nine states.... Similar to our results, Hoen et al. (2013) find no statistical effect of wind turbines on property values.

MaRous Direct Exhibit 4 at 7-8 (emphasis added).

III. ALLEGED INACCURACIES IN MARKET IMPACT ANALYSIS

Q. On pages 11 and 12 of Mr. Lawrence's testimony, Mr. Lawrence alleges four inconsistencies in the data provided for Brookings County sales comparison of 19937 473rd Avenue and 5705 Rathum Loop. What is your response?

A. I do not believe Mr. Lawrence's criticisms are well-founded. I have included each of Mr. Lawrence's allegations and my specific responses below:

"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."

Mr. Lawrence is correct that the publicly available county records do show a \$167,500 sale price. However, our further research found that \$169,500 is the accurate figure. Further, I would not consider a \$2,000 difference in price to be material.

"2. The Market Impact Analysis does not provide any discussion about the proximity to the high-traffic Interstate corridor along the west property boundary."

The interstate is 500 feet away from the residence at 19937 473rd Avenue and blocked by two large outbuildings and trees. Due to this screening, I concluded there was no effect on value.

"3. The Market Analysis lists 5705 Rathum Loop as having a crawl space. Brookings County shows 5705 Rathum Loop as having a finished $\frac{3}{4}$ basement with 800 square feet finished in the lower level."

Again, while Mr. Lawrence accurately reports what is in the public records, my research indicates that the Rathum Loop property has only a crawl space.

"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."

I disagree that the Rathum Loop property should be considered within the City of Brookings real estate market. While Rathum Loop is closer to the Brookings city limits, it is still approximately two miles away and rural in nature. Also, both properties in this paired sale analysis are located on gravel roads.

Q. Mr. Lawrence also comments that the Macon County residential paired sale had a “peculiar” statement that a proximate wind turbine may have led to a quick sale at a higher price. Lawrence Direct at 12. What is your response?

A. Notably, Mr. Lawrence acknowledges that he did no research regarding the paired sale. I believe I have accurately represented the statement the broker made.

IV. ASSESSOR SURVEYS

Q. On pages 13 and 14 of his testimony, Mr. Lawrence states that assessors lack appraisal training, are not focused on assessing individual market values of properties, and therefore interviews with assessors are “not substantively valid in determining the negative impacts from a wind project.” What is your response?

A. First, I disagree with Mr. Lawrence’s criticism of an assessor’s training and knowledge. A county assessor must obtain the Certified Appraiser Assessor designation from the South Dakota Department of Revenue. SD Laws 10-3-1.1; SD Laws 10-3-1.2; SD Admin. Rules 64:02:01:14. To be eligible for this certification, they must have “at least one year of full-time 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.” SD Admin. Rules 64:02:01:05. 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. Thus, 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.

Second, I believe Mr. Lawrence may be misunderstanding the purpose of the assessor surveys. 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. My surveys 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. 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.

V. MARKET SALES

Q. In your Market Impact Analysis, you researched potential sales of properties in six counties where there are more than 25 wind turbines.¹ 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 72-turbine Dakota Range Wind farm 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. A list of the counties and wind farms is provided in Exhibit 1. As Exhibit 1 shows, two of the 12 counties have just two wind turbines (Brule County) or 3 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 Dakota Range Wind Farm because of their smaller sizes.

¹ Aurora County, Brookings County, Charles Mix County, Day County, Hyde County and Jerauld County. I note that these counties were listed incorrectly in my Direct Testimony, p. 4, n. 1.

That leaves eight counties with more than 25 wind turbines. As I noted, I included six of those counties in my sales research and in the South Dakota Assessors Survey contained in my Market Impact Analysis. There are two other counties that have more than 25 turbines. One is McPherson County, which has 59 turbines, and the other county is Campbell County which has 55 turbines.

I did not include the wind farm in McPherson in my initial South Dakota Assessors Survey because more than 50 percent of the wind farm is in North Dakota. The Campbell County wind farm was not identified in our initial research. After filing my Direct Testimony, we contacted assessors in these two counties as well and updated our South Dakota Assessors Survey, attached as Exhibit 2. The information from those interviews was consistent with the information from other county assessors in that there was no data indicating an adverse impact of wind turbines on property values.

Q. Did you conduct any further market research since your Direct Testimony?

A. Yes. I interviewed four individuals who worked for auction/brokerage houses operating in Jerauld County, Clark County, Deuel County, Hyde County, Hand County, Day County and McPherson County. A summary of those interviews is attached as Exhibit 3. Their experience echoes my report findings and conclusions, mainly that turbine leases have a positive effect on agricultural land values and that there is no market evidence that wind farms negatively impact houses in proximity to turbines.

Q. On pages 15 to 19 of his testimony, Mr. Lawrence challenges statements in your testimony and Market Impact Analysis that stated you found no arm's length sale of a property proximate to a wind turbine in the State of South Dakota or a sale of South Dakota farmland in which the transaction included a wind turbine. What is your general response?

- A. In my property sales research, I used the residential online services, including Trulia and Zillow; brokerage research Multiple Listing Service (“MLS”); and public county records. In general, I found South Dakota data to be limited.

Mr. Lawrence’s testimony directed me to Beacon, another source of property sales information for Brookings County. Beacon is a subscription service of which I was not previously aware. To my knowledge, no other counties with wind farms in eastern and central South Dakota have a service that provides the same level of information that Beacon provides in Brookings County. In response to Mr. Lawrence’s testimony, I subscribed to the Beacon service and reviewed the data Mr. Lawrence provided. I then conducted further research on the residential sales to undertake a paired sales analysis. Based on this research and my further analysis, I believe all of the sales Mr. Lawrence identified support the conclusions in my prior testimony and Market Impact Analysis.

Q. Please describe the residential property sales Mr. Lawrence identifies in his testimony.

- A. There are six residential sales, BK Sales 1-5 and 7. A table showing these sales and a figure showing the locations of the sales are provided in Exhibit 4.

Q. Mr. Lawrence identifies distances of homes from turbines in his testimony. Did you use the same measurements in your analysis of the sales he identified?

- A. When doing my analyses for the Market Impact Analysis and in my prior experiences evaluating the potential impact of wind turbines on land values, I have used the distance of a turbine from the residence. When I confirmed those distances, they ranged from 1,118 feet to 10,538 feet.

Q. Did you undertake a paired sales analysis of the residential sales?

- A. Yes. I first searched in Brookings County to determine if there were any additional proximate sales using the Beacon service. I did not find any other than the six

residential sales Mr. Lawrence identified. 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.

Q. What were your conclusions from the paired sales analysis?

A. As detailed in Exhibit 5, Supplemental Paired Sales Analysis—Residential Sales BK 1-5 and 7, the results of my analysis confirmed my prior opinion that 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 key factors including building size, year date, utilities and sale date, the prices of the two properties were essentially the same on a per square foot value.

Q. Mr. Lawrence identifies Sales BK-2 and BK-2.5 as related. What is your assessment of these sales?

A. Mr. Lawrence appears to contend that BK-2, 198424 478th Avenue in Toronto indicates some value diminution due to wind turbines because the initial price for a house with 10 acres sold for less than its “listing price” and close to the price it was in 1998. If this is his implication, I do not agree. The fact that a property sells for less than listing price because listing prices – what a seller wants to get for a property – may or may not be consistent with the reality of market price – what a buyer is willing to pay.

Looking specifically at the parcels, both sales occurred after Buffalo Ridge II became operational in 2010. Given this timing, I am not able to reconcile the note in Mr. Lawrence’s testimony that states the sellers were able “to cancel wind lease agreement per negotiation with buyer of sale BK2.” Also, I note that the BK-2.5 parcel is only 16.95 acres, which is undersized for a wind lease—typically, I have seen those parcels to be of a 50-plus acres size.

BK2.5 has a poor, elongated shape and its unit price of approximately \$3,000/acre appears reasonable, considering a major downward shape adjustment. The property sold in January 2011 for \$50,000 and then again in September 2012 for \$50,000.

BK-2 sold in May 2004 for \$234,900, which is the sales price that Mr. Lawrence uses on page 8. The property resold in March 2011 during the recession for \$235,000 after the Buffalo Ridge wind farms became operational. Based on the major drop in residential values from 2008 to 2011, the value should have probably been less than the price in 2004; however, the property actually sold for a slightly higher price in 2011. The sale price for BK-2 at approximately \$100/sf and an overall price of \$234,900 or \$235,000 is at the upper end of the sales range for the properties Mr. Lawrence identified.

Q. Were you present at the hearing on the Crocker Wind Farm, LLC matter, Docket EL17-055 on May 11, 2018 to hear the testimony of Mr. Lawrence?

A. Yes.

Q. In his testimony, Mr. Lawrence testified that he believed sales BK-2 and BK-5 raised a question of whether a proximate wind turbine could negatively impact property values. Do you agree with his assessment?

A. No, I do not agree with Mr. Lawrence that these sales raise any question. There is no evidence that the sale prices were affected by proximity to a wind turbine. As I noted above, the 2011 sale price of BK-2 was on the high side of the data that Mr. Lawrence presented.

Property BK-5 sold for \$144,200 in September 2008 before the first wind farm became operational. It then sold in July 2010 when the wind farm was under construction, and just before becoming operational, for \$215,000, an increase of \$70,800 in approximately two years. Mr. Lawrence did not mention this transaction

in his testimony. The property resold again for \$190,000 in March 2014. Mr. Lawrence noted the drop in value, approximately 13 percent from 2014 over 2010, in his testimony at hearing. There is no evidence the drop related to wind turbines. The value could have been attributed to many items, including market conditions, property conditions, or a seller wishing to liquidate.

Moreover, any effect the wind farm would have had on the value of the property should have been experienced with the 2010 sale—during wind farm construction. Based on the 49 percent increase in value over the 2008 sale there is no evidence of negative impact caused by the wind farm.

VI. PROPERTY VALUE SURVEY

Q. Mr. Mauersberger attaches the Brookings County 2015 Property Value Survey to his Rebuttal Testimony. How does that survey impact your analysis and conclusions?

A. I have reviewed the survey and found it to be consistent with my opinion that the Dakota Range Wind Farm will not impact property values. While the survey does not provide detailed information on its methodology, the data compiled included property assessment data and agricultural sales between 2011 (first year of wind turbine operation) and 2015 of 233 properties, including 30 rural acreages. Of those properties reviewed, only one property decreased in assessed value during that time period. All other properties' assessed values showed an increase. The survey also summarized discussions with auctioneers that was consistent with my interviews with brokers and auctioneers.

VII. CONCLUSION

Q. As stated in your April 6, 2018, testimony, do you continue to believe that the Commission has adequate information in this record to evaluate the potential land value impacts of the Project?

A. Yes. The Commission has even more information than was available at the time of my initial testimony. The additional paired sales analysis of the Brookings County sales detailed in this testimony supports by opinion that there is no market evidence to conclude that property values would be adversely impacted.

Q. Does this conclude your Rebuttal Testimony?

A. Yes.

Dated this 21st day of May, 2018.

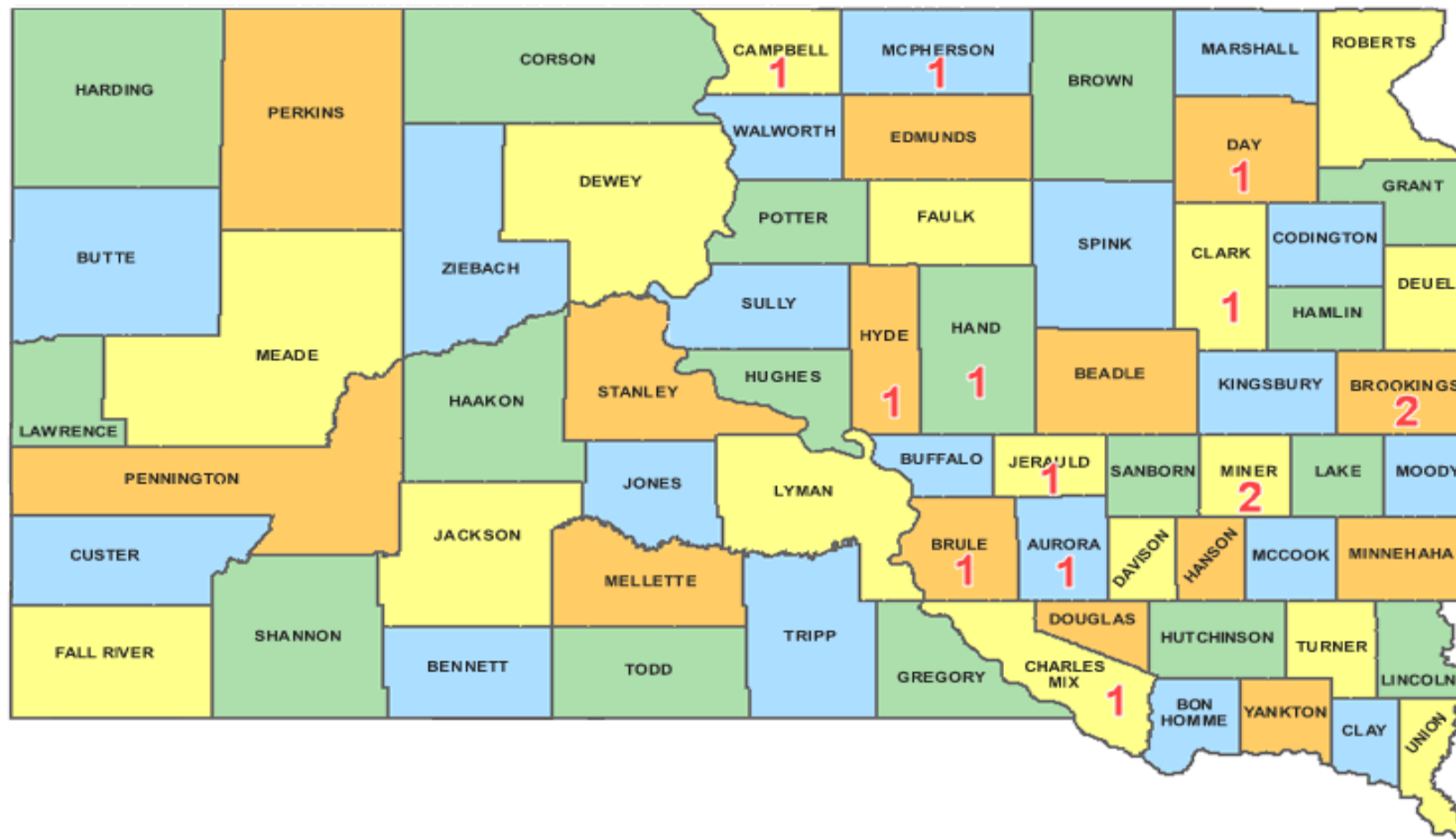


Michael MaRous

All South Dakota Wind Farms

County	Wind Farm	Capacity (MW)	Turbine Count	Year Online
Aurora	Crow Lake Wind	162	108	2010
Brookings	Buffalo Ridge Wind Power I & II	260.4	129	2010
Brule	Chamberlain Wind Project	2.6	2	2001
Campbell	Campbell County Wind	95	55	2015
Charles Mix	Beethoven Wind, LLC	79.55	43	2012
Clark	Oak Tree	19.5	11	2014
Day	Day County Wind	99	66	2010
Hand	Titan I	25	10	2009
Hyde	South Dakota Wind	40.5	27	2003
Jerauld	Wessington Springs	51	34	2009
McPherson	Tatanka Wind Part #2	88.5	59	2008
Miner	City of Howard Wind Turbines	0.22	2	2001
Miner	Carthage Wind Turbine	0.11	1	2002

AWEA U.S. Wind Industry Map - <http://gis.awea.org/arcgisportal/apps/webappviewer/index.html?id=eed1ec3b624742f8b18280e6aa73e8ec>



AWEA U.S. Wind Industry Map - <http://gis.awea.org/arcgisportal/apps/webappviewer/index.html?id=eed1ec3b624742f8b18280e6aa73e8ec>

UPDATED

South Dakota County Assessor Survey

South Dakota County Assessor Survey Analysis

A survey of assessors in 8 counties in South Dakota which wind farms currently are operational has been undertaken. The supervisors or deputy supervisors of assessments were interviewed. The interviews were intended to allow the assessment officials to share their experiences regarding the impact of the wind farm(s) upon the market values and/or the assessed values of surrounding properties. The interviews were conversational, but thoroughly discussed residential and agricultural values and impacts. The interviews were conducted on November 7, 2017, and updated April 12, 2018.

Conclusions of the Study

Based on these interviews:

- Without exception, the interviewees reported that there was no market evidence to support a negative impact upon residential property values as a result of the development of, and the proximity to, a wind farm facility. In some counties, this results from the very rural nature of the area in which the projects are located.
- 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. As of the date of this report, there are more than 7 wind farms with 400 wind turbines within these counties. There have been no reductions in assessed valuations related to wind turbines.
- Residential assessed values have fluctuated consistently countywide as influenced by market conditions, with no regard for proximity to a wind farm.
- Agricultural properties are taxed based upon a productivity formula that is not impacted by market data and by external influences.

Scope of Project

The supervisors or deputy supervisors of assessments were interviewed. Each of the interviewees was familiar with the wind farm(s) located within their respective county. The following is the list of County Supervisors of Assessments contacted:

1. Aurora County	Ms. Leah Vissia	605-942-7164
2. Brookings County	Mr. Jacob Brehmer (Deputy)	605-696-8220
3. Campbell County	Ms. Jill Hoogeveen	605-955-3577
4. Charles Mix County	Ms. Denise Weber	605-487-7382
5. Day County	Ms. Dari Schlotte	605-345-9502
6. Hyde County	Ms. Carrie Stevenson	605-852-2070
7. Jerauld County	Ms. Janice Bender	605-539-9701
8. McPherson County	Ms. Lanette Butler	605-439-3663

A map indicating the number of wind farms in each of these counties is included in this memorandum. A second map illustrates the number of the wind farms located in each of these counties.

Residential Market Values

Without exception, the interviewees reported that there was no market evidence to support a negative impact upon residential property values as a result of the development of, and the proximity to, a wind farm facility. Either as a request by a county board, in an attempt to appropriately assess newly constructed residences, or to support current assessed values, the supervisors of assessments have been particularly attentive to market activity in the area of the wind farms.

Aurora, Brookings, Day, and McPherson Counties' Supervisors of Assessments all stated that a majority of the wind turbines were placed with grazing and pasture land used for raising cattle. Each one of the assessors made it a point to note that they had personally witnessed the cows grazing right alongside turbines, indicating that the turbines had no effect, of any kind, on the animals.

Ms. Lanette Butler, the McPherson County Supervisor of Assessments, lives proximate to wind farm and is a participating land owner with five wind turbines on her property. She also stated that she is a former employee of Acciona Energia (owner of Tatanka Wind) prior to becoming the McPherson County Supervisor of Assessments and has been pleased with the work the company performs and the strict policies the company carries out for noise and wildlife safety. She also stated that the only way the turbines are audibly noticeable is on very quiet days with very minimal wind.

Residential Assessed Values, Complaints/Tax Appeal Filings

The assessors reported that there have been no successful tax appeal filings based upon wind farm issues. Although there have been two counties with tax appeals that were denied by the county boards in Aurora County and Campbell County

Ms. Carrie Stevenson, the Hyde County Supervisor of Assessments, did mention that the morning on the day the survey was taken Hyde County held its County Commissioners meeting. The topic of some of the meeting revolved around wind farms in the county. In attendance were approximately 30 residents, or a little over 2% of the total population of Hyde County. These residents showed up to voice their various complaints to the County Commissioners. The complaints were listened to and validated, yet in the end, there were no changes to property values given.

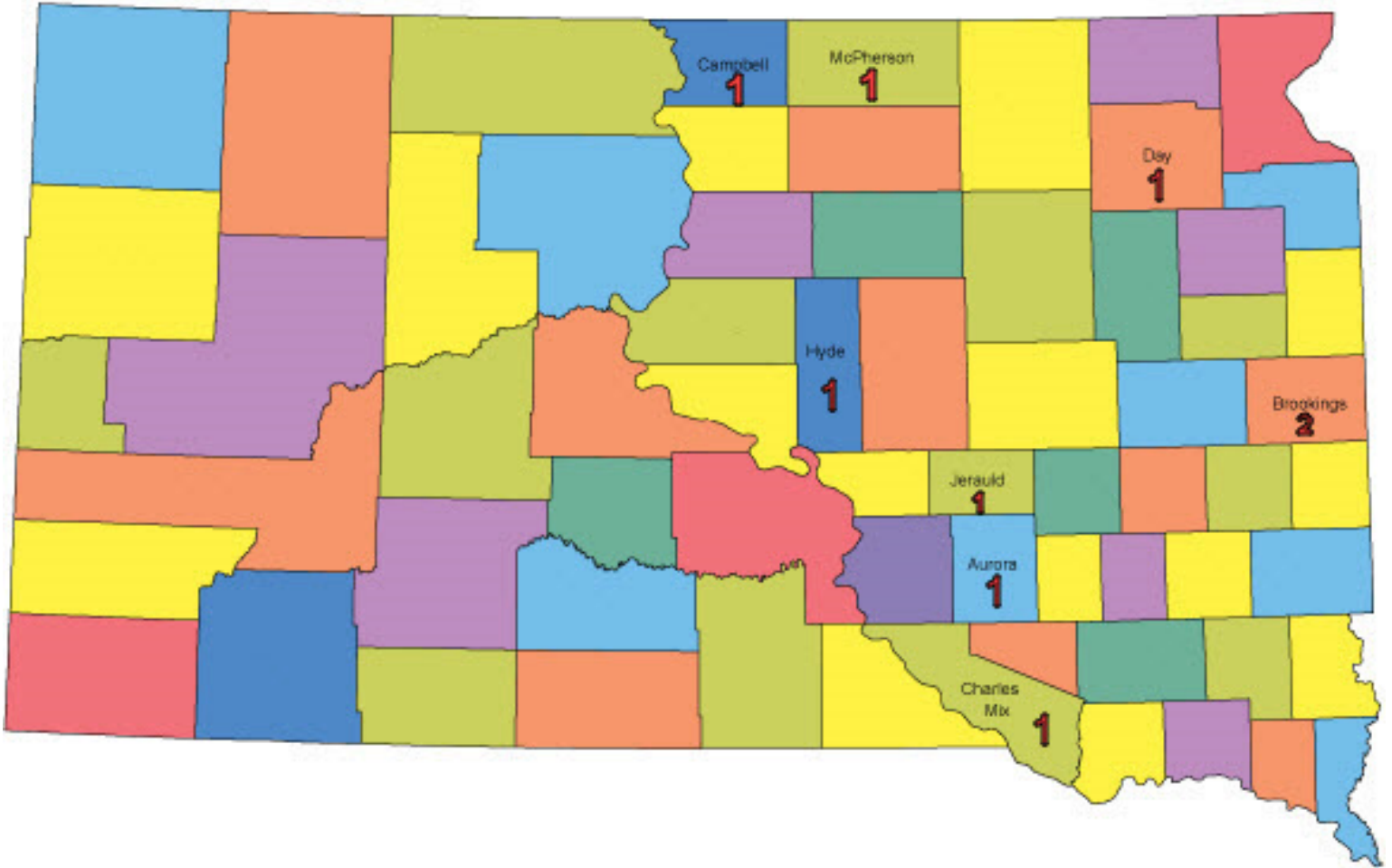
Consistently, the assessors reported that whatever initial concern there may have been regarding property values during the planning and approval stages of the various wind farms dissipated once the wind farm was constructed. Repeatedly, the assessors would state that the revenue that would come into the county and to each individual farmer would outweigh any initial concern that the residents would have about the wind farms joining their communities.

Agricultural Values/Assessed Values

The assessed values of agricultural properties are established based upon a productivity formula and are not driven by market data. Reportedly, assessed values of agricultural properties have been steady or increasing in recent years and are projected to continue increasing for the near future. The assessors reported that no major complaints have been received and/or no tax appeal filings have been filed for agricultural properties within the wind farm footprint.

Based on this survey, it does not appear that the Supervisors of Assessments in the 6 surveyed in South Dakota have reason to believe that the location of wind turbines in their county has had a negative impact on property values.

South Dakota



Map of South Dakota Counties Surveyed

Wind Farm Count by County

25 Turbines or Higher



Note: As depicted on this map from the AWEA, as of the date of this survey, the locations of certain wind farms are approximations. In some instances, the wind farms are incorrectly shown to be located in adjacent counties. This map also shows the locations of smaller wind farms, but for the accuracy of this study we have only focused on the farms with 25 turbines or higher.



SOUTH DAKOTA AUCTIONEER/BROKER SURVEY

1. **Bob Hansen Auction**
Jarauld County
Marshall Hansen
25150 US Highway 81
Salem, SD 57058
(605) 425-2608
www.hansenauction.com

 - In areas of low population and development turbines are a big plus.
 - Closer to homes, turbines can be negative to neighbors and might keep a buyer away but did not have insight on actual sales.
 - Land is surprisingly strong.
 - Insecticides pose a larger impact on gamebirds and wildlife than turbines.

2. **Burlage-Peterson Auctions**
Deuel & Clark County
Lenny Burlage
317 4th Street
Brookings, SD 57006
(605) 692-7102
www.burlagepeterson.com

 - Turbines do not hurt values, if anything they help property values.
 - Turbines can affect each individual differently.
 - Crocker Wind Farm will help the economy.
 - Turbines do not pose an effect on hunting.

3. **Advantage Land Company**
Hyde, McPherson, & Hand County
Jackson Hegerfeld
510 Main Avenue
Brookings, SD 57006
(605) 692-2525
www.advantagelandco.com

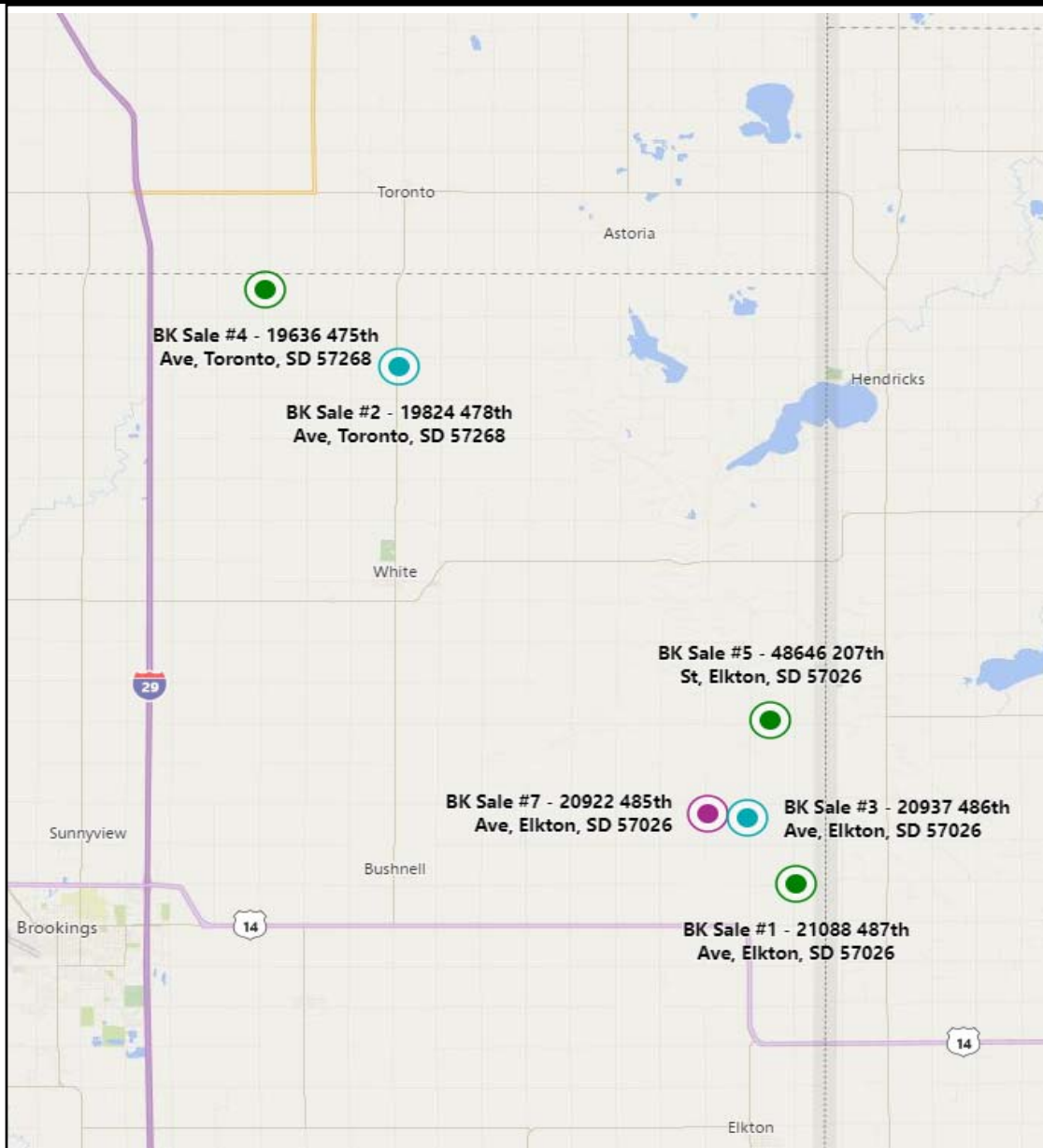
 - In his opinion, people with turbine leases on their land regret having turbines nearby because of the jet-like noise.
 - Does not see any difference in land values.
 - Land sales are strong because there are limited properties on the market.
 - Farmettes and smaller residential properties are not in demand in the current market.
 - Property owned by hunters only effect marginal areas of the state.

4. **Thorpe Realty & Auction**
Day & McPherson County
Jim Thorpe
1002 South Lawson Street
Aberdeen, SD 57401
(605) 225-7775
www.thorperealtyauction.com

 - Turbine leases are a big plus to landowner, and the people like having the towers on their land.
 - Has not seen any sales involving turbines yet.
 - Has seen concern from some farmers about the effect the turbines have on livestock.
 - Aging owners are needing to sell their residential property, but there has been movement from larger cities to buy these properties.
 - Has family land in McPherson County with a turbine nearby.

SINGLE-FAMILY RESIDENTIAL SALES SUMMARY
FROM THE DATA FOUND IN THE LAWRENCE DIRECT

BK No.	Location	Sale Price	Sale Date	Site Size (Acres)	Year Built	Building Size (Sq. Ft.)	Sale Price Per Acre	Sale Price Per Sq. Ft. of Bldg. Area Incl. Land
1	21088 487th Ave. (Gravel) Elkton, South Dakota	\$183,000	10/16	8.00	2003	2,746	\$22,875.00	\$66.64
2	19824 478th Ave. (Paved) Toronto, South Dakota	\$234,900	3/11	10.00	1998	2,341	\$23,490.00	\$100.34
3	20937 486th Ave. (Paved) Elkton, South Dakota	\$175,000	12/11	14.28	1918	2,208	\$12,254.90	\$79.26
4	19636 475th Ave. (Gravel) Toronto, South Dakota	\$530,000	11/13	13.00	1989	3,496	\$40,769.23	\$151.60
5	48646 207th St. (Gravel) Elkton, South Dakota	\$215,000	3/14	6.95	1936	2,160	\$30,935.25	\$99.54
7	20922 485th Ave. (Gravel) Elkton, South Dakota	\$180,000	8/10	13.35	1992	1,680	\$13,483.15	\$107.14
	5705 Rathum Loop (Gravel) Brookings, South Dakota	\$142,000	6/15	0.49	1973	2,078	\$289,795.92	\$68.33



BROOKINGS COUNTY - REBUTTAL BK1

	BK 1A - Proximate to a Wind Turbine	BK 1B - Not Proximate to a Wind Turbine
Address	21088 487th Ave. Elkton, South Dakota	5705 Rathum Loop Brookings, South Dakota
Distance from Turbine	1,028 Feet	N/A
Sale Date	October 14, 2016	June 5, 2015
Sale Price	\$183,000	\$142,000
Sale Price/Sq. Ft. (A.G.)	\$66.64	\$68.33
Year Built	2003	1973
Building Size (Sq. Ft.)	2,746	2,078
Lot Size (Acres)	8.00	0.49
Style	One-story, frame (vinyl) 5 bdrms., 3 ba.	One-story; frame (vinyl) 9 rms., 3 bdrms.
Basement	Partial	Crawlspace/Partial
Utilities	Central air; Forced-air heat; Well & septic	Central air; Forced-air heat; Well & septic
Other	1-car attached garage Patio, deck, utility buildings	1-car attached garage; 3-car detached garage; Patio, deck, utility buildings



Both the 487th Avenue property and the Rathum Loop property are ranch-style houses, however Rathum Loop appears to only contain three bedrooms, where 487th Avenue has five bedrooms. An upward adjustment of Rathum Loop for the superior building style of 487th Avenue is required. In the case of the Rathum loop property, there are utility buildings, a detached three-car garage, and then a one-car garage attached to the house, however the 487th Avenue property has a just one larger utility building and an attached one-car garage. A downward adjustment for the superior out buildings of Rathum Loop is required. The 487th Avenue building is of newer construction and Rathum Loop is approximately 50 years old. Both properties are considered to be in normal condition by the Brookings County Assessor. An upward adjustment of Rathum Loop is required for 487th Avenue's newer vintage. An upward adjustment is made for the larger building size of the 487th Avenue property. The 487th Avenue property is also situated on a much larger lot than that of the Rathum Loop property requiring an upward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

Considering the adjustments noted in the following table for the older vintage and smaller size of the Rathum Loop property and the superior market conditions of the 487th Avenue property, Thus, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 487th Avenue property.

ADJUSTMENT GRID - BK 1

SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
1B	5705 Rathum Loop Brookings, South Dakota	+	+	+	+	+	o	o	-
	+	Positive adjustment based on comparable being inferior in comparison to property #1A							
	-	Negative adjustment based on comparable being superior in comparison to property #1A							
	o	No adjustment necessary							

BROOKINGS COUNTY - REBUTTAL BK 2

	BK 2A - Proximate to a Wind Turbine	BK 2B - Not Proximate to a Wind Turbine
Address	19824 478th Ave. Toronto, South Dakota	20485 475th Ave. Brookings, South Dakota
Distance from Turbine	1,548 Feet	N/A
Sale Date	March 14, 2011	August 10, 2016
Sale Price	\$235,000	\$300,000
Sale Price/Sq. Ft. (A.G.)	\$100.38	\$129.53
Year Built	1998	2016
Building Size (Sq. Ft.)	2,341	2,316
Lot Size (Acres)	9.50	19.10
Style	1.5-story, frame (stone/vinyl) 3 bdrms., 1.2 ba.	One-story; frame (vinyl) 4 bdrms., 3 ba.
Basement	Partial	Full
Utilities	Radiant floor heat; Well & septic	Central air; Geothermal heat; Well & septic
Other	1-car attached garage	3-car attached garage



Although the 478th Avenue property is a 1.5-story house and the 475th Avenue property is a ranch-style house, the two houses are of equivalent size. In the case of the 475th Avenue property, there an attached three-car garage, while the 478th Avenue property has an attached one-car garage. A downward adjustment for the superior out buildings of 475th Avenue is required. The 475th Avenue building is of newer construction than 478th Avenue property. Both properties are considered to be in normal condition by the Brookings County Assessor. A downward adjustment of 475th Avenue is required for its newer vintage, as well as a downward adjustment of 475th Avenue for its superior market conditions. The 475th Avenue property is situated on a much larger lot than that of the 478th Avenue property requiring a downward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

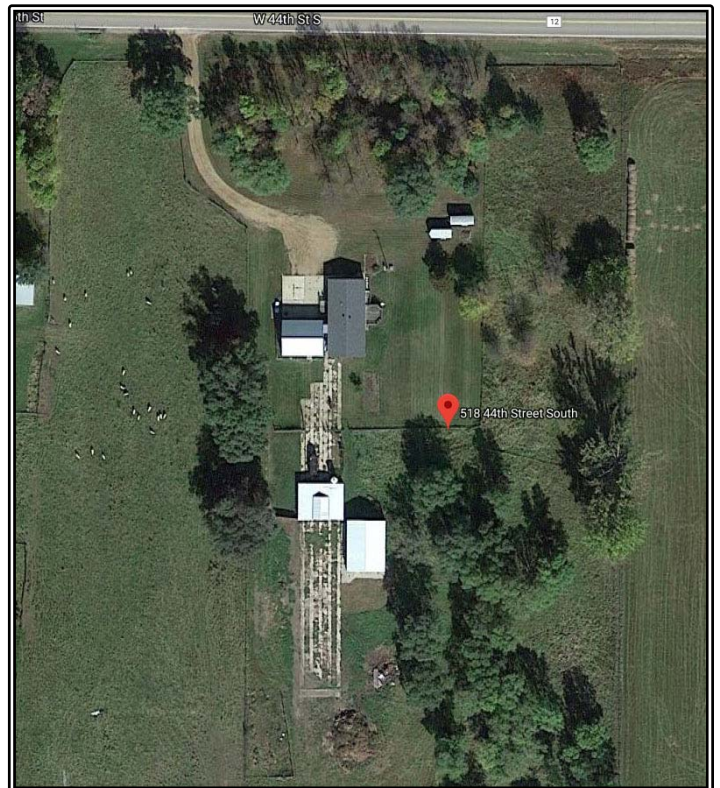
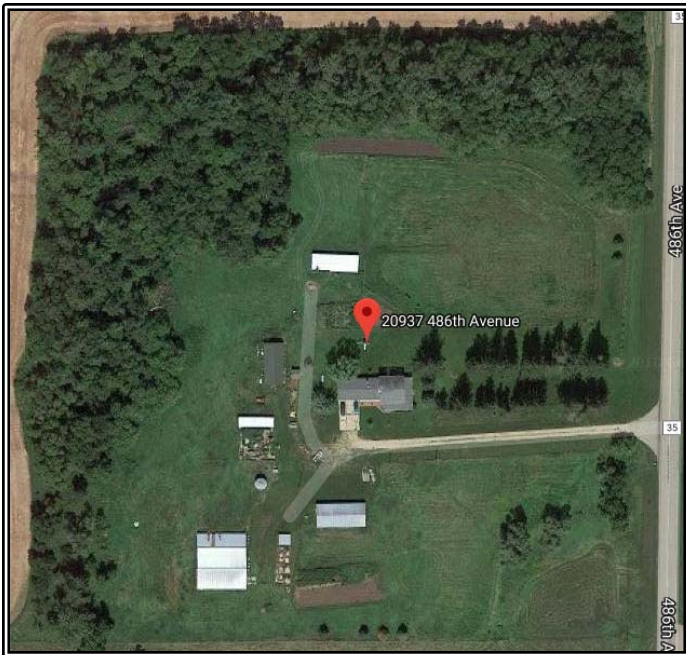
Considering the adjustments noted in the following table for the newer vintage and superior market conditions of the 475th Avenue property, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 478th Avenue property.

ADJUSTMENT GRID - BK 2

SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
2B	20485 475th Ave. Brookings, South Dakota	-	-	o	-	o	-	-	-
+	Positive adjustment based on comparable being inferior in comparison to property #2A								
-	Negative adjustment based on comparable being superior in comparison to property #2A								
o	No adjustment necessary								

BROOKINGS COUNTY - REBUTTAL BK 3

	BK 3A - Proximate to a Wind Turbine	BK 3B - Not Proximate to a Wind Turbine
Address	20937 486th Ave. Elkton, South Dakota	518 W. 44th St. S. Brookings, South Dakota
Distance from Turbine	1,433 Feet	N/A
Sale Date	December 1, 2011	October 9, 2017
Sale Price	\$175,000	\$175,900
Sale Price/Sq. Ft. (A.G.)	\$79.26	\$104.70
Year Built	1918	1990
Building Size (Sq. Ft.)	2,208	1,680
Lot Size (Acres)	14.28	4.55
Style	Two-story, frame (vinyl) 4 bdrms., 2 ba.	One-story; frame (vinyl) 3 bdrms., 2 ba.
Basement	Partial	Crawlspace
Utilities	Central air; Forced-air heat;	Central air; Forced-air heat;
Other	Well & septic 2-car attached garage	Well & septic 2-car detached garage



The 486th Avenue property is a two-story house and the 44th Street South property is a one-story house, and the 486th Avenue has an extra bedroom. The superior style and number of bedrooms of the 486th Avenue property requires an upward adjustment. In the case of the out buildings, both properties have a two-car garage. The 44th Street South building is of newer construction than 486th Avenue property, which is 100 years old. Both properties are considered to be in normal condition by the Brookings County Assessor. A downward adjustment of 44th Street South is required for its newer vintage, as well as a downward adjustment of 44th Street South for its superior market conditions. The 486th Avenue property is situated on a much larger lot than that of the 44th Street South property requiring an upward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

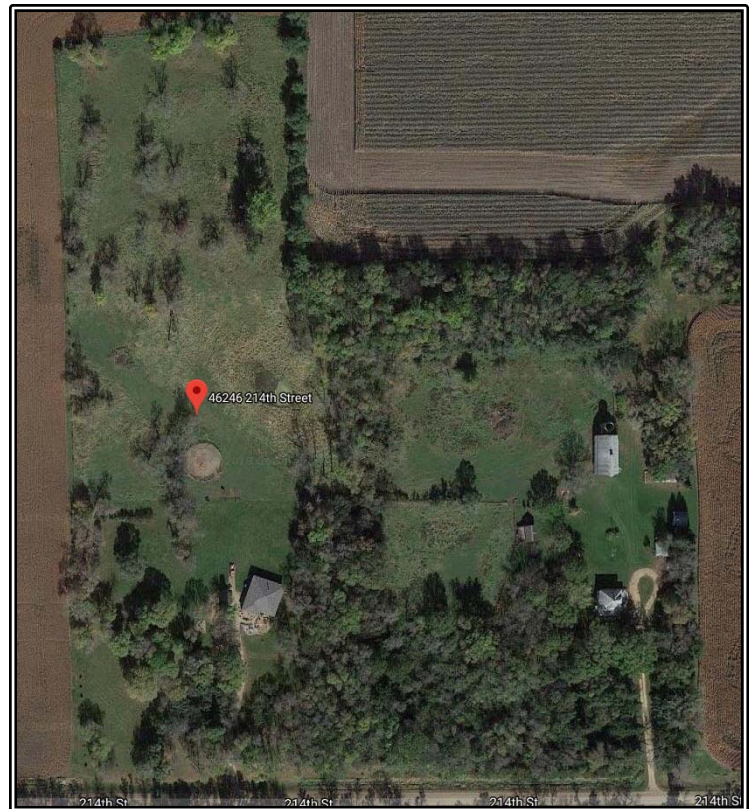
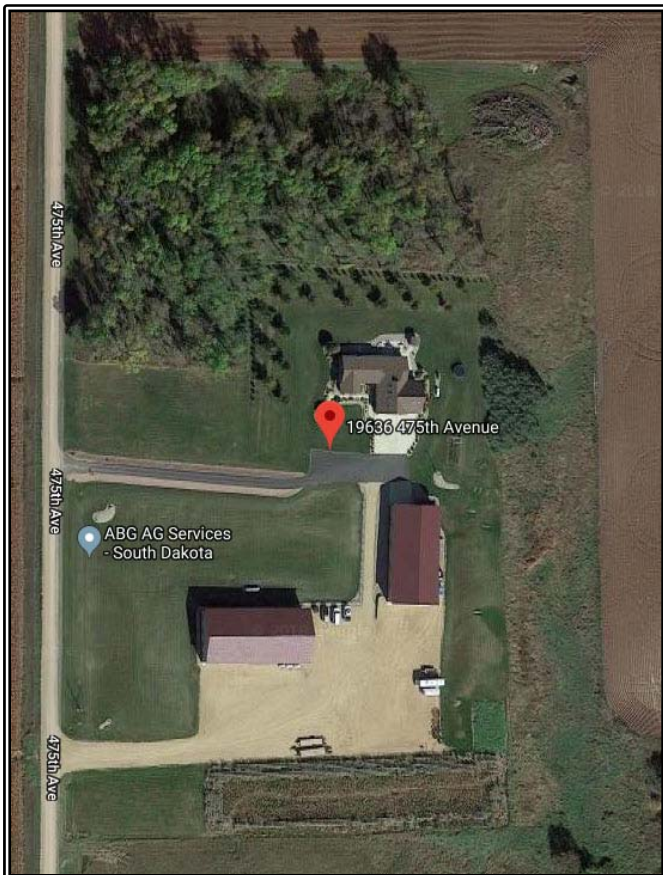
Considering the adjustments noted in the following table for the newer vintage and superior market conditions of the 44th Street South property, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 486th Avenue property.

ADJUSTMENT GRID - BK 3

SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
3B	518 W. 44th St. S. Brookings, South Dakota	-	-	+	+	+	+	o	o
+	Positive adjustment based on comparable being inferior in comparison to property #3A								
-	Negative adjustment based on comparable being superior in comparison to property #3A								
o	No adjustment necessary								

BROOKINGS COUNTY - REBUTTAL BK 4

	BK 4A - Proximate to a Wind Turbine	BK 4B - Not Proximate to a Wind Turbine
Address	19636 475th Ave. Toronto, South Dakota	46246 214th St. Volga, South Dakota
Distance from Turbine	2,309 Feet	N/A
Sale Date	November 21, 2013	December 21, 2016
Sale Price	\$530,000	\$317,000
Sale Price/Sq. Ft. (A.G.)	\$151.60	\$182.81
Year Built	1989	2001
Building Size (Sq. Ft.)	3,496	1,734
Lot Size (Acres)	13.00	10.43
Style	One-story; frame (vinyl) 5 bdrms., 3 ba.	One-story; frame (vinyl) 4 bdrms., 3 ba.
Basement	Partial	Full
Utilities	Central air; Forced-air heat; Well & septic	Central air; Geothermal heat; Well & septic
Other	3-car attached garage; two large commercial utility buildings; gazebo	1-car attached garage; 2-car detached garage



Both the 475th Avenue property and the 214th Street property are a one-story ranch style house. In the case of the out buildings, the 475th Avenue property is superior with two large commercial style utility buildings and a three-car attached garage compared to the 214th Street property with a two-car detached garage and a one-car attached garage. The superiority of the 475th Avenue buildings require an upward adjustment. A downward adjustment is required for the superior basement size of the 214th Street property. The 214th Street building is of newer construction than 475th Avenue property. Both properties are considered to be in normal condition by the Brookings County Assessor. A downward adjustment of 214th Street is required for its newer vintage, as well as a downward adjustment of 214th Street for its superior market conditions. The 475th Avenue property is situated on a larger lot than that of the 214th Street property requiring an upward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

Considering the adjustments noted in the following table for the newer vintage and superior market conditions of the 214th Street property, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 475th Avenue property.

ADJUSTMENT GRID - BK 4									
SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
4B	46246 214th St. Volga, South Dakota	-	-	+	+	o	-	-	+
+	Positive adjustment based on comparable being inferior in comparison to property #4A								
-	Negative adjustment based on comparable being superior in comparison to property #4A								
o	No adjustment necessary								

BROOKINGS COUNTY - REBUTTAL BK 5

	BK 5A - Proximate to a Wind Turbine	BK 5B - Not Proximate to a Wind Turbine
Address	48646 207th St. Elkton, South Dakota	5705 Rathum Loop Brookings, South Dakota
Distance from Turbine	1,118 Feet	N/A
Sale Date	March 26, 2014	June 5, 2015
Sale Price	\$190,000	\$142,000
Sale Price/Sq. Ft. (A.G.)	\$87.96	\$68.33
Year Built	1936	1973
Building Size (Sq. Ft.)	2,160	2,078
Lot Size (Acres)	6.95	0.49
Style	Two-story, frame (vinyl) 3 bdrms., 3 ba.	One-story; frame (vinyl) 9 rms., 3 bdrms.
Basement	Partial Central air;	Crawlspace/Partial Central air;
Utilities	Forced-air heat; Well & septic	Forced-air heat; Well & septic
Other	1-car attached garage; 2-car detached garage	1-car attached garage; 3-car detached garage; Patio, deck, utility buildings



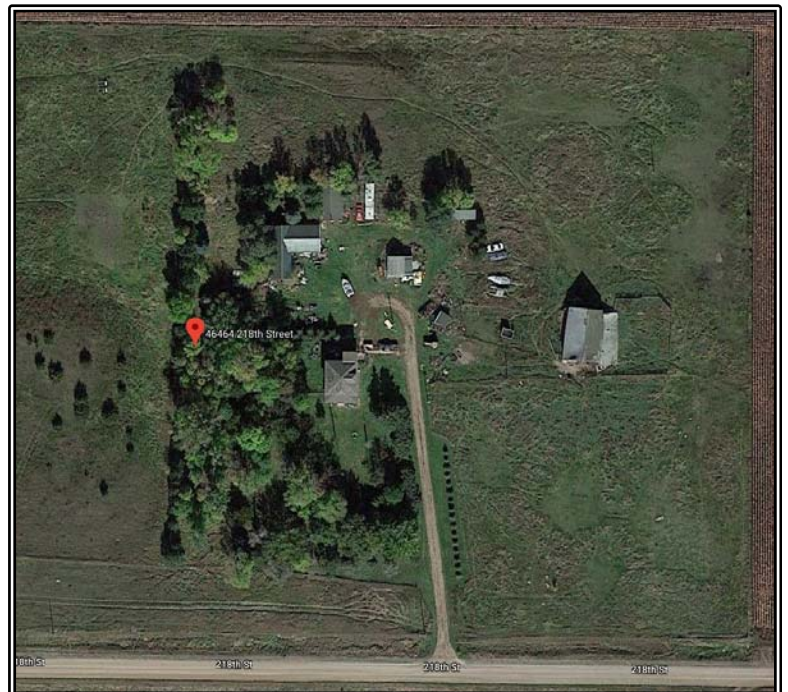
Although the 207th Street property is a two-story house and the Rathum Loop property is a ranch-style house, the two houses are of equivalent size. However, an upward adjustment to Rathum Loop is required for the superior building style of 207th Street property. In the case of the Rathum loop property, there are utility buildings, a detached three-car garage, and then a one-car garage attached to the house, while the 207th Street property has an attached one-car garage and a detached two-car garage. A downward adjustment for the superior out buildings of Rathum Loop is required. The Rathum Loop building is of newer construction yet is still approximately 50 years old. The 207th Street property is closer to 80 years old. Both properties are considered to be in normal condition by the Brookings County Assessor. A downward adjustment of Rathum Loop is required for its newer vintage, as well as a downward adjustment of Rathum Loop for its superior market conditions. The 207th Street property is situated on a much larger lot than that of the Rathum Loop property requiring an upward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

Considering the adjustments noted in the following table for the newer vintage and superior market conditions, yet smaller lot size of the Rathum Loop property, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 207th Street property.

ADJUSTMENT GRID - BK 5									
SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
5B	5705 Rathum Loop Brookings, South Dakota	-	-	o	+	+	o	o	-
+	Positive adjustment based on comparable being inferior in comparison to property #5A								
-	Negative adjustment based on comparable being superior in comparison to property #5A								
o	No adjustment necessary								

BROOKINGS COUNTY - REBUTTAL BK 7

	BK 7A - Proximate to a Wind Turbine	BK 7B - Not Proximate to a Wind Turbine
Address	20922 485th Ave. Elkton, South Dakota	46464 218th St. Volga, South Dakota
Distance from Turbine	1,959 Feet	N/A
Sale Date	August 4, 2010	November 14, 2014
Sale Price	\$180,000	\$190,600
Sale Price/Sq. Ft. (A.G.)	\$107.14	\$113.45
Year Built	1992	1918
Building Size (Sq. Ft.)	1,680	1,680
Lot Size (Acres)	13.35	15.00
Style	One-story; frame (vinyl) 4 bdrms., 2 ba.	Two-story; frame (vinyl) 5 bdrms., 2 ba.
Basement	Partial	Full
Utilities	Central air; Geothermal heat; Well & septic	Central air; Forced-air heat; Well & septic
Other	1-car attached garage	1-car detached garage



The 218th Street property is a two-story house with five bedrooms and the 485th Avenue property is a one-story ranch style house with four bedrooms. The superior style of 218th Street property requires a downward adjustment. In the case of the out buildings, both properties have a one-car garage. The 485th Avenue building is of newer construction than the 218th Street property, which is 100 years old. Both properties are considered to be in normal condition by the Brookings County Assessor. An upward adjustment of 218th Street is required for 485th Avenue's newer vintage, as well as a downward adjustment of 218th Street for its superior market conditions. The 218th Street property is situated on a larger lot than that of the 485th Avenue property requiring an upward adjustment; however, both lots are surrounded by agricultural and pasture land, which mitigates the size differential to some degree.

Considering the adjustments noted in the following table for the older vintage, yet superior market conditions of the 218th Street property, the difference in the sale price does not support the conclusion that proximity to the wind turbines had a negative impact on the value of the 485th Avenue property.

ADJUSTMENT GRID - BK 7

SALE NO.	LOCATION	SALE DATE	YEAR BUILT	BUILDING SIZE	LOT SIZE	STYLE	BASEMENT	UTILITIES	OUT-BUILDINGS
7B	46464 218th St. Volga, South Dakota	-	+	o	o	-	-	+	o
+	Positive adjustment based on comparable being inferior in comparison to property #7A								
-	Negative adjustment based on comparable being superior in comparison to property #7A								
o	No adjustment necessary								

