

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**

**Surrebuttal Testimony of David Lawrence
On Behalf of the Staff of the South Dakota Public Utilities Commission
June 8, 2018**

1 **Q: State your name.**

2 A: My name is David Lawrence.

3

4 **Q: Did you provide Direct Testimony in the Docket on May 4, 2018?**

5 A: Yes.

6

7 **Q: Did you conduct any further market research since your Direct Testimony on May 4,**
8 **2018?**

9 A: Yes. In response to Mr. MaRous' direct testimony indicating there was only one sale
10 in South Dakota near a wind project, I performed research in Brookings County to identify
11 sales that have been influenced by a wind tower, turbine or wind project. My preliminary
12 research identified thirteen arm's length transfers in the proximity of a wind tower. Of
13 these thirteen sales, six sales were rural residential properties, and seven sales were
14 agricultural properties. With the time requirements of my direct testimony, hearings and
15 preliminary research, I was not able to investigate and verify the Brookings sales research
16 before the filing deadline. Since submission of my Direct Testimony, I have taken the
17 opportunity to study the Brookings sales research. A summary of the research is found in
18 the addendum of my testimony, identified as Exhibit 1.

19

20

21

1 **Q: Can you briefly describe the scope of work that was applied to the Brookings County**
2 **sales?**

3 A: Due to time constraints of the June 12, 2018 hearing, I was not able to perform a
4 complete case-by-case analysis for the thirteen sales identified. I did prioritize the
5 residential sales BK1, BK2, BK3, BK4, BK5 and BK7. For these sales I performed a site
6 inspection, interview analysis, and a sales analysis. The remaining sales were analyzed
7 with site inspections and interviews. I set out on May 23, 2018 to begin my field research
8 and inspect each property with particular emphasis on examining the proximity of a wind
9 tower and how the tower proximity relationship can influence rural properties.
10 Inspections were done from the public roadway for sales BK1, BK2.5, BK6, BK7, BK9, BK10,
11 BK11 and BK12. In five cases the property owner was present, and I was able to complete
12 an on-site inspection with sales BK2, BK3, BK4, BK5, and BK8. I did not have time to drive
13 to Jerauld County, and relied on high resolution aerial images for sale JD13 and a
14 telephone participant interview. In addition to the BK sales, I visited several rural
15 residential and agricultural properties in the market area influenced by a wind tower.
16 These inspections allowed me to evaluate the influences a wind tower can have on the
17 different property types in the market area of Brookings County. After completing the
18 field work, the next step was to interview as many of the participants in the transaction
19 as possible. I knew a buyer's name and address, and/or a broker involved with the
20 transaction from preliminary research I accomplished at the beginning of May. Given the
21 name and address, I was able to search for phone numbers. Unfortunately, finding a
22 working phone number for participants is becoming more difficult, but I was able to talk

1 with about twenty participants by phone or in person. The objective of the interview
2 analysis was to verify terms of the sale and to inquire whether the sale and/or subsequent
3 use of the property were in any way affected by the proximity of a wind tower. A set of
4 scripted questions were asked in such a manner that no bias or preconceived notions
5 were projected during the interview. Based on the recorded legal documents, site
6 inspections, and information gathered, a detailed description of BK1, BK2, BK3, BK4, BK5
7 and BK7 was developed for the sales analysis. The next step was to develop data on
8 property sales that were similar in time, location and property type to each of the BK
9 sales, but not in proximity to a wind tower. The methodology of the analysis is similar to
10 the sales comparison approach in the appraisal process. To identify this research, I used
11 the Brookings County MLS, Beacon and aerial images to confirm that each comparable
12 sale was unaffected by a wind tower, turbine or wind project. Then each of these sales
13 were summarized in terms of physical characteristics and qualitatively analyzed for
14 differences. The uninfluenced sales were compared to the BK influenced sale for analysis.
15 The final step was to analyze the information collected for each transaction and draw
16 conclusions with respect to the effect, if any, of the proximity of the wind tower on the
17 transaction or on use of the property. The summary of BK1, BK2, BK3, BK4, BK5 and BK7
18 can be found in Exhibit 1. As mentioned previously, I did not have sufficient time to
19 complete a thorough analysis with each of the thirteen individual sales. My scope of work
20 did not include: 1) a sales analysis for sales BK6, BK8, BK9, BK10, BK11, BK12 and JD13; 2)
21 a site visit for JD13; 3) a review of the chain of title for each property ownership since
22 the project first became operational; 4) a site visit and additional verification for the

1 comparable sales identified with MLS; 5) an analysis of the history of the wind project(s)
2 in Brookings County, such as installation date, tower characteristics, project capacity,
3 project construction, operational history etc. and 6) supplemental research in the other
4 thirteen South Dakota counties with operating wind projects.

5

6 **Q: What are the results of your additional market research?**

7 A: The results of the market research are provided in the addendum and identified as
8 Exhibit 1. The research is presented in the following order:

- 9 1. Transaction Summary Table -- sales BK1, BK2, BK3, BK4, BK5, and BK7
- 10 2. Transaction Summary Table -- sales BK6, BK8, BK9, BK10, BK11, BK12 & JD13
- 11 3. Interview Summary Table
- 12 4. Individual Sales Analysis -- sales BK1, BK2, BK3, BK4, BK5 & BK7

13

14 **Q: What are your general conclusions about the research you completed?**

15 A: Based on my research within the Brookings County market, the evidence supports the
16 presumption there have been no adverse effects on the selling price of rural residential
17 properties in proximity to a wind tower, turbine or wind project. However, the interview
18 and site analysis support the presumption that proximity to a wind tower could influence
19 the property owner's bundles of rights, such as the right to quiet enjoyment. Given the
20 responses from market participants, there is a relationship between the distance from a
21 turbine and the effects on value perceived by individual property owners who live in
22 proximity to wind towers. Wind tower noise is the number one reason cited by market
23 participants for a perceived impact on value; however, the sales data suggests otherwise.
24 More specifically, the Brookings County research for rural residential properties suggests:
25 1) there was no discernible adverse impact on the selling prices in Brookings County that

1 could be supported for sales BK1, BK2, BK3, BK4, BK5 and BK7; 2) Interviews with buyers
2 of properties near wind towers were unanimous to report the proximity of the wind tower
3 did not influence the price they paid; 3) In six of six rural residential sales, the market
4 data was consistent, even though the site inspection observed influences of noise and
5 view obstructions within the property boundaries.

6 Although I did not complete a sales analysis for the agricultural sales, the research
7 supports the presumption there have been no adverse effects on the selling price of
8 agricultural properties in proximity to and within the boundaries of the property with a
9 wind tower. During the interview process, participants of agricultural properties were
10 consistent to report the price paid was not affected by a wind tower and in some cases
11 reported a stronger price per acre when the wind payments transferred with the
12 property. The most common issues farmers cited about wind towers is the limitation of
13 aerial spraying, poor reclamation, and compaction issues after the installation of the
14 towers, possible yield loss due to the inability to plant straight rows and the difficulties
15 associated with working around the towers during planting and harvest. Without
16 comparison of the sales evidence with the interview evidence, the agricultural analysis is
17 determined to be inconclusive; however, all agricultural participants were consistent to
18 report there was no adverse effect to the price paid because of the presence of a wind
19 tower. The summary of my research is limited to Brookings County and supported by
20 analyzing six rural residential sales, seven agricultural sales, and twenty market
21 participant interviews.

1 **Q: What is your response to the research and analysis completed for the Brookings**
2 **County?**

3 A: I would caution the commissioners or any reader of my testimony that the above
4 research is only a small representation of 1 of 14 counties in South Dakota where there is
5 an operating wind project. With an assignment of this nature, I would typically have a
6 multi-county or tri-state research area with a sales population of at least fifteen sales for
7 a case-by-case analysis (per property type) with participant interviews of more than
8 thirty. While the research is consistent with the NBNL study and Mr. Marous' research, a
9 pool of six rural residential and seven agricultural sales is a limited population upon which
10 to base conclusive results. Brookings County represents only seven percent of the study
11 area that is available in South Dakota for research of the impacts of wind projects on real
12 property values. Nevertheless, the research reported in my testimony provides a useful
13 starting point from which to consider the facts of a particular situation, and does not rule
14 out that an individual property could be adversely impacted from the presence of a wind
15 tower, turbine, or wind project.

16

17 **Q: Mr. Mauersberg attaches the Brookings County 2015 Property Value Survey to his**
18 **Rebuttal Testimony (Exhibit 1), and Mr. MaRous concurs with the study in his**
19 **testimony. Do you agree with the methodology and results of the study?**

20 A: No, I do not agree. I have read the Brookings County 2015 Property Value Survey
21 developed by Prevailing Winds, LLC and the results of the study could be misleading.
22 Moreover, 1) it does not follow the accepted appraisal methodology for a study of this

1 type; 2) the data was developed by Prevailing Winds, LLC, who is an advocate for wind
2 energy in South Dakota. The purpose of a study of this nature is to promote and maintain
3 a high level of public trust in the development and reporting of such results. There is no
4 way to ascertain if the assignment was developed with impartiality, objectivity, and
5 independence. Personal interests and bias surround the author of the study; 3) As
6 previously discussed in my Direct Testimony on page thirteen, assessment value is not
7 market value. Assessment value can be higher or lower than market value. I have
8 difficulty understanding the correlation in using assessment value trends to measure the
9 impacts on market value from a wind project. Mass appraisal techniques are used for
10 assessing thousands of properties in the county for taxation, not determining if an
11 individual property shows a negative or positive influence from an externality such as a
12 wind tower.

13
14 **Q: Does this conclude your testimony?**

15 **A: Yes.**

Exhibit 1:

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. ****

Ag 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
BK2.5	AG	None	None	Not Developed	Inconclusive	None apparent per interview
BK6	AG	None	None	Not Developed	Inconclusive	None apparent per interview
BK8	AG/Res	None	None	Not Developed	Inconclusive	None apparent per interview
BK9	AG	None	None	Not Developed	Inconclusive	None apparent per interview
BK10	AG	None	None	Not Developed	Inconclusive	None apparent per interview
BK11	AG	None	None	Not Developed	Inconclusive	None apparent per interview
BK12	AG	None	None	Not Developed	Inconclusive	None apparent per interview
JD13	AG	None	None	Not Developed	Inconclusive	None apparent per interview

****Sales analysis not developed due to time constraints****

Interview Summary Table			
Interview Reference	Property Type	Participant	Interview Summary Comments
BK1	Residential	Broker	Can be noisy. Limits potential buyers . Doesn't seem to affect price.
BK2	Residential	Buyer	Did not affect purchase decision. Don't like the noise. Flicker effect certain times of the day. Blade broke and threw fragments near the house. Sounds like a continual swooshing sound when it's windy.
BK2 BK2.5	Res/AG	Seller	Satisfied with price. Could feel vibrations inside the house. Glad not to be living near wind towers. Had to give up a wind lease option to sell the house.
BK2.5	AG	Buyer	No affect on purchase price of BK2.5. Own & lease farmland with wind towers. Live in proximity to wind towers. Noisy. Poor reclamation after construction of towers; compaction & loss of yields. Difficult to farm around towers. Currently have farmland under contract with towers.
BK3	Residential	Broker	Some buyers won't look at home near wind towers. However, there is demand for acreages in the market and it doesn't seem to affect the price.
BK3	Residential	Buyer	The towers sound like jet planes when you are working in the yard. But paid the same, even though they don't like the noise.
BK4	Residential	Buyer	Some noise, but doesn't bother me. Paid the same. Happy with purchase.
BK4	Residential	Seller	Got tired of the annoying noise. Decided to sell. We thought it would effect the value; but it didn't matter to the buyer. Glad to not be living next to wind towers.
BK4	Residential	Broker	Though sellers initially expressed concerns about the turbines affecting the price, it took only four months to sell a high-end rural home. Agent doesn't think there was any effect on the price.
BK5	Residential	Broker	Really noisy. Distracts some buyers. Limited acreages in the market. Doesn't seem to be a negative effect on the price. Distance from Brookings is more of a concern to buyers than the wind towers.
BK5	Residential	Buyer	Can be noisy, but didn't matter to us when we purchased the home. Paid the same. No issues.
BK6	AG	Broker	Sales and manages properties with wind towers. Doesn't seem to affect the price or ability to get market rents. There are issues with towers. Can't aerial spray. Breaks up the land; can't plant straight rows. Some guys like them; some don't. It really comes down to a personal decision.
BK7	Residential	Buyer	No affect on value. Property value has increased. Proximity to towers doesn't matter. Little bit of noise when working in the yard. No affect to animals. No concerns or issues.
BK8	AG	Buyer	No issues or concerns. Cattle don't care about the noise. Purchased the land on a CFD and paid market price with towers located on the quarter and no wind payment. No difference in price to me.

Interview Summary Table (continued)			
Interview Reference	Property Type	Participant	Interview Summary Comments
BK9	AG	Buyer	Has over 47 towers located on various ground. Lives near towers, too. Issues with lightning strikes and shattered blades. The company does not clean up well. Good wind payments. Have some towers that pay \$12,000/year. Increases land value with wind payments. No affect with land without payments. People who complain are not getting the payments. Just purchased another 152 acres with a wind tower with no payment. Doesn't affect the price as long as you can farm it and there are no affects with yields.
BK12	AG	Broker	Managed auction with wind payments from two towers. Pasture land sold to adjoining land owner. Wind payments \$12,373 per year. Property sold in 2018 for \$616,000. Wind payments alone are approximately a 2% return and you still can lease or use the property. Believes sale price was positively influenced by the wind payments. No issues with pasture land; have had some issues with tillable ground. Can't plant straight rows, no aerial spraying and can't hunt around the towers. You can hear them run if you are near a tower. Payments offset the hassles with towers.
JD13	AG	Broker	Managed a pasture land auction with towers. Wind lease with 43 years remaining and a 1% annual increase. Land sold for a 10%-15% premium according to auctioneer. Some restrictions because of the towers. You can't shoot around them. Noisy and limits aerial applications.
BKGH	Residential	Seller	Trying to sell a house within the proposed project area. Currently listed on MLS. Had an offer on the property, but believes the disclosure of the proposed wind project near the property ended the deal.
BKDJ	Residential	Owner	Built retirement home prior to the wind project. Towers within 1,000 ft of property on all sides. Noisy. Shadow and flicker effect during certain times of the day. Have to deal with constant noise. Some days louder than others, depending of direction on the wind. Believes the towers are effecting his ability to sell the property.
BKBB	Residential	Owner	Purchased home prior to the wind project. There are periods of the day when there is a shadow effect depending on the angle of the sun. Best way to describe it is like a camera flash. The curtains in the house have to be closed during the flicker times. The flash scares the horses. The red lights, light up the night sky and destroy star gazing. The house was listed for sale and most potential buyers drove away when they saw how close the towers are to the house. The wind company over promised and under delivered.

SALES ANALYSIS BK1	SALE No.	BK1
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 8 Acres
Improvements: 2003 Ranch modular design
Finished Area: 2,356 S.F. GLA, 300 S.F. Lower Level
Garage: Attached 2-Stall
Features: Treed shelter belt. (2) Pole buildings 40x96 & 34x50
Access: Gravel road linkage

Sales Analysis Data:

Date of Sale: January 28, 2016
Market Exposure: MLS
Listing Price: \$218,000
Sale Price: \$183,000
Verification: Deed; Beacon; Interview with Broker
Type: Arm's Length Sale
DOM: 153

Wind Project:

Project: Buffalo Ridge
Turbine Type: Gamesa G87 2.0 MW
Hub Height/Rotor Diameter: 78/87 meters
Height from Ground: 399 feet
Wind Tower Property Notes: 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.

Wind Tower Aerial Map:



Appreciation Analysis:

(Influenced by Tower) Sale 1 Bk1:	October 30, 2009	\$166,000
(Influenced by Tower) Sale 2 BK1:	<u>January 28, 2016</u>	<u>\$183,000</u>
	6.24 Years	\$23,000
BK1 Appreciation:	\$3,685/Year	1.64%/Year
(Uninfluenced) Sale 1 486 th :	December 7, 2004	\$133,000
(Uninfluenced) Sale 2 486 th :	<u>October 11, 2013</u>	<u>\$145,000</u>
	9.25 Years	\$12,000
486th Appreciation:	\$1,298/Year	.98%/Year
(Uninfluenced) Sale 213 th :	August 10, 2013	\$266,000
(Uninfluenced) Sale 213 th :	<u>May 24, 2018</u>	<u>\$290,903</u>
	4.62 Years	\$24,906
213th Appreciation:	\$5,390/Year	2.02%/Year

Conclusion: Sale BK1 has market appreciation within the range of the market sales that are not influenced by a wind tower, turbine or wind project.

Site Analysis:

Site Visit Conducted by: David Lawrence

Site Visit Date: May 23, 2018

View Obstruction: Wind towers within view of residence

Noise Analysis: Operational & blade noise present during site visit.

Interview Analysis:

Interview Conducted by: David Lawrence

Party Interviewed: Broker

Interview Date: May 28, 2018

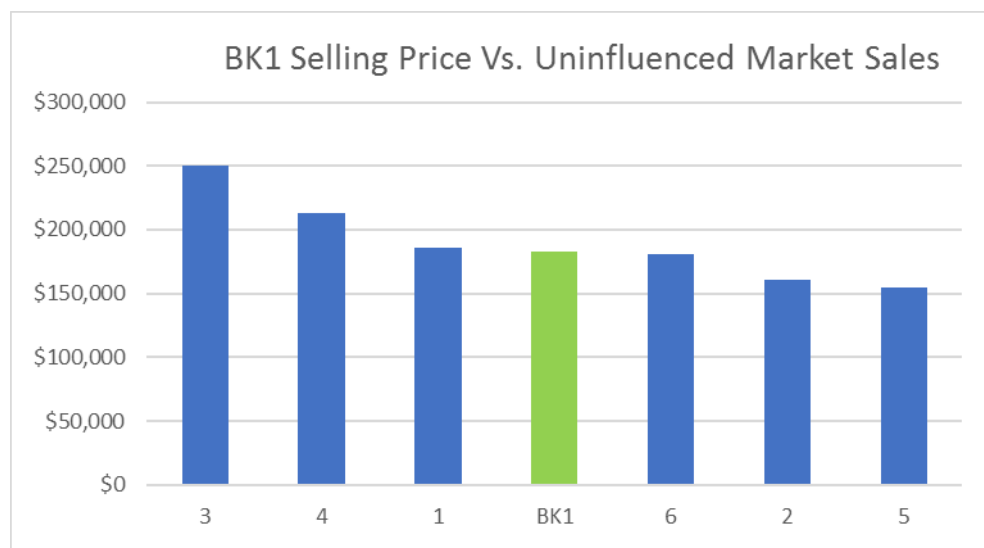
Interview Notes with Broker:

This is the second time the broker has sold the property. The property sold within 150 days. The broker made sure to include pictures of the wind towers in the photos so potential buyers would be aware of the proximity. The broker stated that some potential buyers did not like the proximity of the wind turbines, while other potential buyers didn't care. There were more issues with the manufactured home design than concern for the wind towers. Broker stated the buyers liked the majestic beauty of the towers and there was no detrimental effect on the selling price because of the proximity of the wind towers.

Interview Notes with Buyer:

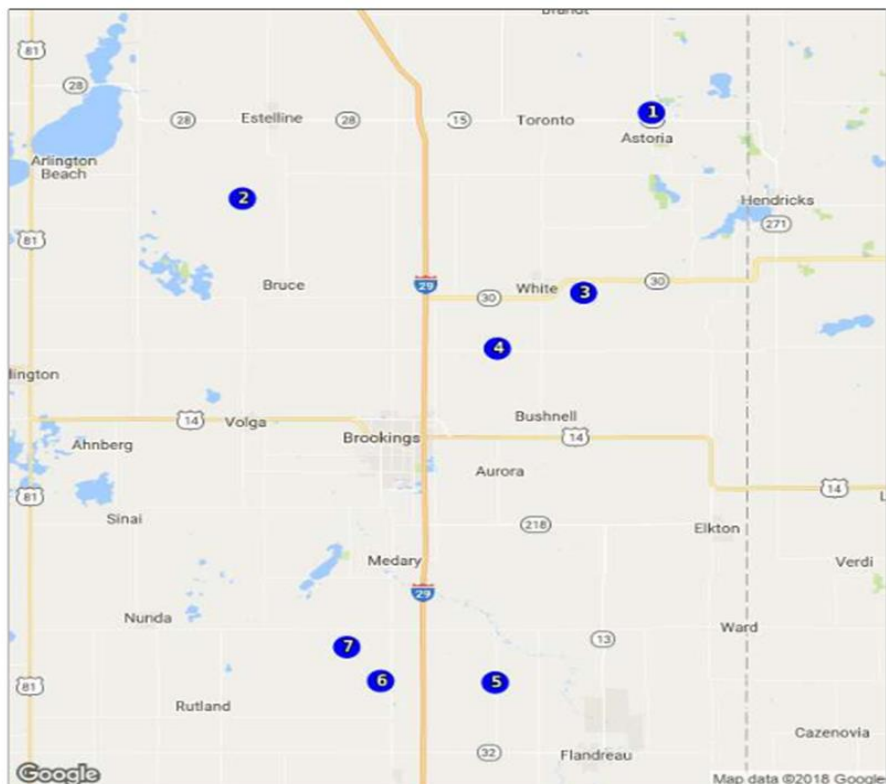
The owner was not available during the site visit. I left a voice mail message; the owner did not return my phone call.

Market Sales Analysis:



Sales Analysis BK1									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK1	Elkton	2016	\$183,000	2003	2,356	8	Ranch	Pole Buildings	
1	Astoria	2015	\$186,000	1910	1,472	14	Story1/2	Outbuildings	Comparable
			Adjustments:	Similar(=)	Inferior (+)	Superior(-)	Similar(=)	Similar(=)	
2	Bruce	2015	\$161,000	1952	1,134	6.44	Ranch	1-car garage	Inferior
			Adjustments:	Similar(=)	Inferior (+)	Similar(=)	Similar(=)	Inferior (+)	
3	White	2015	\$250,000	2010	1,518	22.48	Ranch	Barn/Guest House	Superior
			Adjustments:	Superior(-)	Inferior (+)	Superior(-)	Similar(=)	Superior(-)	
4	Aurora	2016	\$213,000	1910	1,140	12.37	Story 1/2	Pole Building/Barn	Comparable
			Adjustments:	Similar(=)	Inferior (+)	Superior(-)	Similar(=)	Similar(=)	
5	Colman	2015	\$155,000	1979	1,568	3.13	Ranch	Quonset/Garage	Inferior
			Adjustments:	Similar(=)	Inferior(+)	Inferior(+)	Similar(=)	Inferior(+)	
6	Colman	2015	\$180,400	1961	2,240	10	Ranch	Barn/Outbuildings	Comparable
			Adjustments:	Similar(=)	Similar(=)	Similar(=)	Similar(=)	Similar(=)	

Sale Location Map:



Legend	
1. 19367 483RD AVE, Astoria, SD 57213(13-122)	5. 22603 476th Ave., Flandreau, SD 57028(14-156)
2. 19851 464th Avenue, Bruce, SD 57220(15-394)	6. 47023 226th Street, Colman, SD 57071(15-368)
3. 20383 480TH AVE, White, SD 57276(15-434)	7. 22409 468th Avenue, Colman, SD 57017(15-39)
4. 47594 207th St, Aurora, SD 57002(16-467)	

Market Sales Analysis**Conclusion:**

Seven sales are from the market without the influence of a wind tower. All transactions have similar highest and best use and are bracketed by the market sales. Sales one, four and six have stronger similarities for comparison and bracket the range of BK1. The market evidence suggests the selling price was not affected by the proximity of the wind towers.

Overall Conclusion:

An interview analysis, site observation, and sales analysis were completed for BK1. The research and data suggest the proximity of the wind towers did not influence the selling price. Sale BK1 sold in 2009 and then resold in 2016 with a market appreciation rate within the range of other uninfluenced sales not in the proximity of a wind tower. Even though there are visual & noise effects observed during the site visit, the interview and market data suggest the proximity of the wind towers has not negatively influenced sale BK1.

SALES ANALYSIS BK2	SALE No.	BK2
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 10 Acres
Improvements: 1998 Story 1/2 design
Finished Area: 1,850 S.F. GLA, 1,004 S.F. Lower Level
Garage: Attached 1-Stall
Features: Treed shelter belt. Shed, storage building & hobby building
Access: Paved highway linkage

Sales Analysis Data:

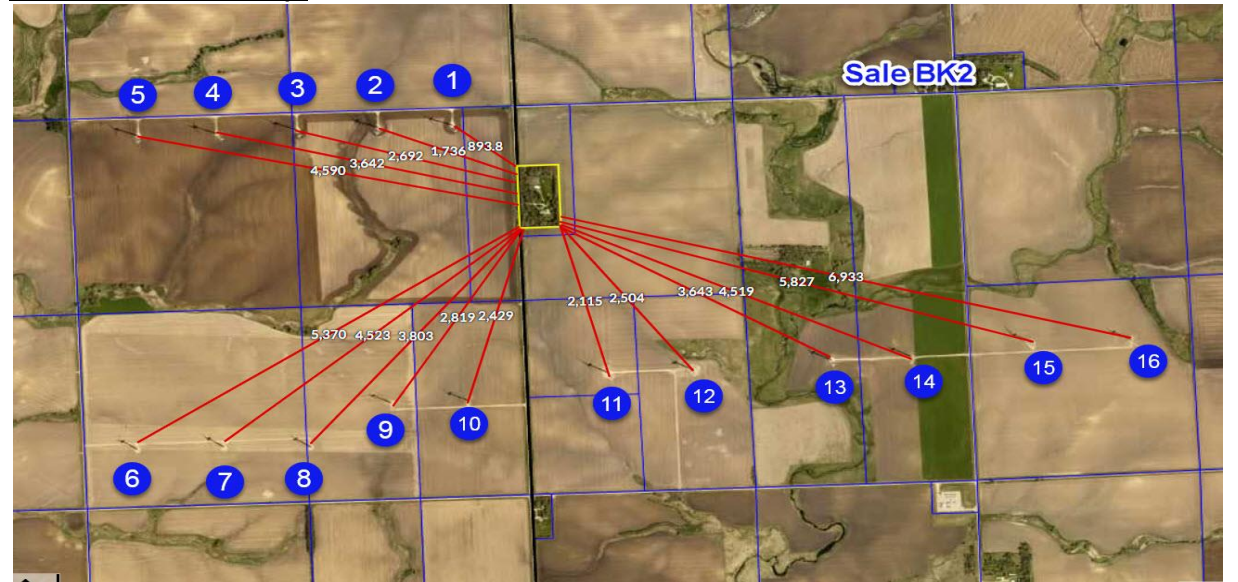
Date of Sale: March 14, 2011
Market Exposure: MLS
Listing Price: \$339,000
Sale Price: \$235,000
Verification: Deed; Beacon; Interview with Buyer & Seller
Type: Arm's Length Sale

Wind Project:

Project: Buffalo Ridge
Turbine Type: Gamesa G87 2.0 MW
Hub Height/Rotor Diameter: 78/87 meters
Height From Ground: 399 feet
Property & Wind Tower Encompassed by 16 wind turbines. Tower #1 890 +/- feet northwest.
Notes: 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.

Wind Tower Aerial Map:



Site Analysis:

Site Visit Conducted by: David Lawrence
Site Visit Date: May 23, 2018
View Obstruction: Wind towers within view of residence
Noise Analysis: Operational & blade noise present during site visit.

Interview Analysis:

Interview Conducted by: David Lawrence
Party Interviewed: Buyer & Seller
Interview Date Buyer: May 28, 2018
Interview Date Seller: April 11, 2018

Interview Notes with Buyer:

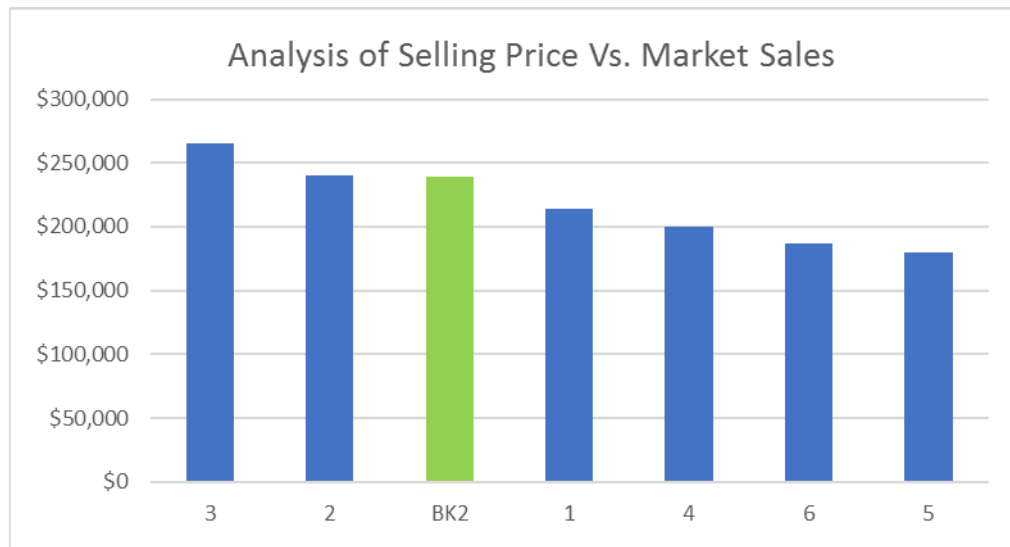
The home was purchased with the assistance of a real estate agent. Towers were in place at the time of purchase. Turbines surrounding the property didn't affect purchase decision or price paid; although they would prefer not to have them. Some flicker effect and noise. Haven't noticed any health effects. When they purchased the home, there was an encumbrance on the title for a wind easement they had to work with the seller to clean up before closing.

Interview Notes with Seller:

(Interview performed by Northern Plains Appraisal) Sellers desired their privacy and would only allow an interview with NPA. Seller stated when they sold the house, they couldn't get the listing price of \$339,000, the price was lowered and sold it for what they could. They also owned the adjoining land around the home. The buyer did not

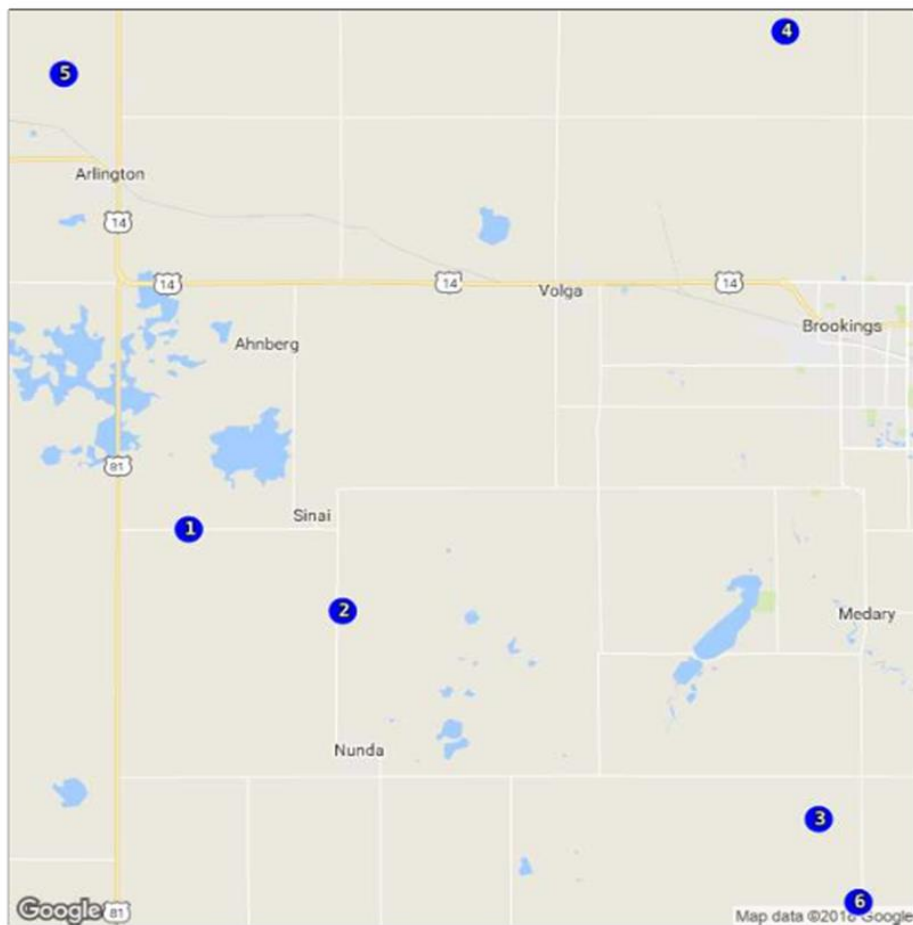
want any wind towers near the house and therefore had a condition of sale not to sign a wind lease. Seller stated it was difficult to find a buyer, but they were satisfied with the purchase price. Seller stated you could feel the vibrations in the air and towers create issues with the body. They are glad they do not live around wind towers.

Market Sales Analysis:



Sales Analysis BK2									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK2	Toronto	2011	\$239,000	1998	1,850	10	Story 1/2	Shed/Storage Bld	
1	Arlington	2009	\$214,000	2007	1,748	13	Ranch	Barn/Shed/2car	Comparable
			Adjustments:	Similar(=)	Similar(=)	Similar(=)	Similar(=)	Similar(=)	
2	Volga	2012	\$240,000	1983	1,784	4.5	Ranch	Shed/Pole	Comparable
			Adjustments:	Similar(=)	Similar(=)	Inferior(+)	Similar(=)	Similar(=)	
3	Colman	2009	\$265,000	2006	1,500	9.88	Ranch	Barn/2Car/Shed	Superior
			Adjustments:	Superior (-)	Inferior (+)	Similar(=)	Similar(=)	Superior(-)	
4	Brookings	2011	\$200,000	1949	1,344	9.75	Story1/2	Barn/Shed	Inferior
			Adjustments:	Inferior(+)	Inferior (+)	Similar(=)	Similar(=)	Similar(=)	
5	Arlington	2011	\$180,000	1917	1,510	11.79	Story1/2	2cGarage/Sheds	Inferior
			Adjustments:	Inferior(+)	Inferior(+)	Similar(=)	Similar(=)	Similar(=)	
6	Volga	2011	\$187,000	1954	1,491	5	Story1/2	Outbuildings	Inferior
			Adjustments:	Inferior(+)	Inferior(+)	Inferior (+)	Similar(=)	Similar(=)	

Sale Location Map:



Legend	
1. 45674 217th St, Arlington, SD 57002(09-653)	4. 46922 205TH ST, Brookings, SD 57006(11-219)
2. 45916 219TH ST, Volga, SD 57071(12-313)	5. 45279 206TH ST, Arlington, SD 57212(11-307)
3. 22406 470th Ave, Colman, SD 57017(09-852)	6. 22609 471ST AVE, Colman, SD 57017(11-511)

Market Sales Analysis

Conclusion:

The analysis uses six sales from the Brookings market with similar highest and best use. All sales are without the influence of a wind tower in proximity to the property. Sales one and two are the most similar sales and bracket the selling price of the subject. The remaining sales provide further market support of the selling range of market substitutes. After analyzing the elements of comparison, sale BK2 is within the range of the uninfluenced market sales. The data suggests the wind towers did not negatively influence the selling price.

Overall Conclusion:

An interview analysis, site visit, and sales analysis have been completed for BK2. During the site visit, wind tower noise was present on the on the property. The buyer interview indicated this was not a factor during

the buying process. There are inconsistencies between the seller interview and the buyer interview; however, the sales data and the buyer's interview comments are consistent. The evidence suggests the proximity of the wind towers did not negatively influence the purchase price.

SALES ANALYSIS BK3	SALE No.	BK3
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 14.28 Acres
Improvements: 1918 Story 1/2 design
Finished Area: 2,208 S.F. GLA
Garage: Attached 2-Stall
Features: Treed shelter belt. Shed, storage building
Access: Paved highway linkage

Sales Analysis Data:

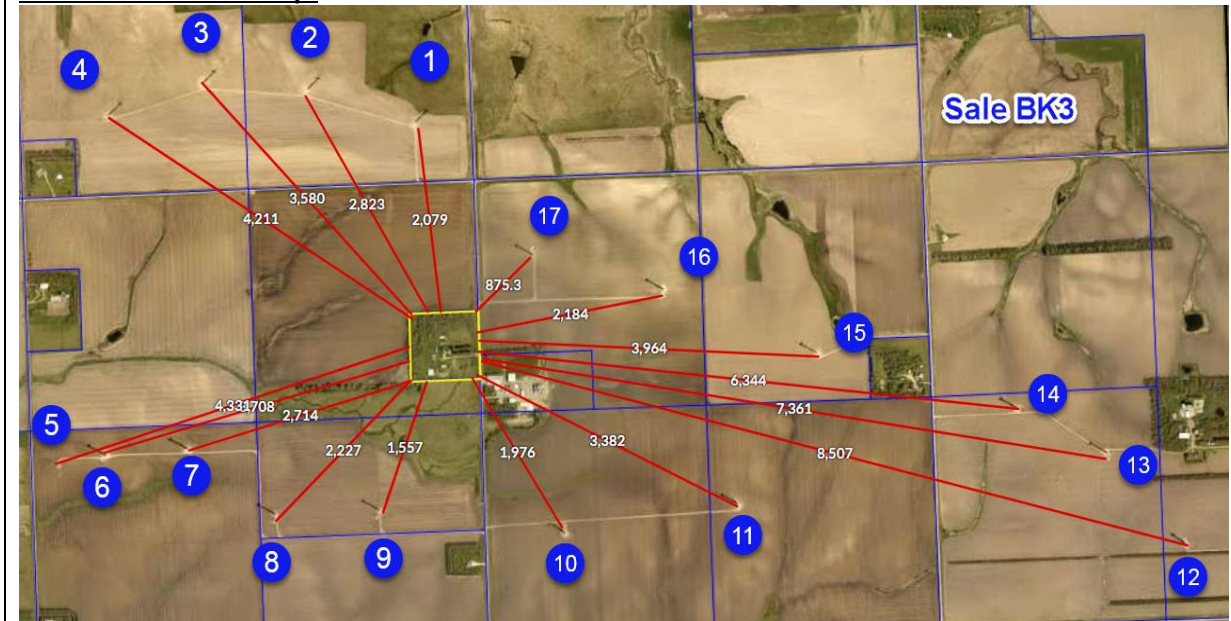
Date of Sale: December 06, 2011
Market Exposure: MLS
Listing Price: \$189,000
Sale Price: \$175,000
Verification: Deed; Beacon; Interview with Buyer & Agent
Type: Arm's Length Sale

Wind Project:

Project: Buffalo Ridge
Turbine Type: Gamesa G87 2.0 MW
Hub Height/Rotor Diameter: 78/87 meters
Height From Ground: 399 feet
Wind Tower Property Notes: 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 +/- feet southeast. Tower #13 7,400 +/- feet southeast. Tower #14 6,400 +/- feet east. Tower #15 4,000 +/- feet east. Tower #16 2,100 +/- feet northeast. Tower #17 875 +/- feet northeast.

Wind Tower Aerial Map:



Site Analysis:

Site Visit Conducted by: David Lawrence
Site Visit Date: May 23, 2018
View Obstruction: Wind towers within view of residence
Noise Analysis: Operational & blade noise present during site visit.

Interview Analysis:

Interview Conducted by: David Lawrence
Party Interviewed: Buyer & Agent
Interview Date: May 23, 2018 (Buyer) May 28, 2018 (Agent)

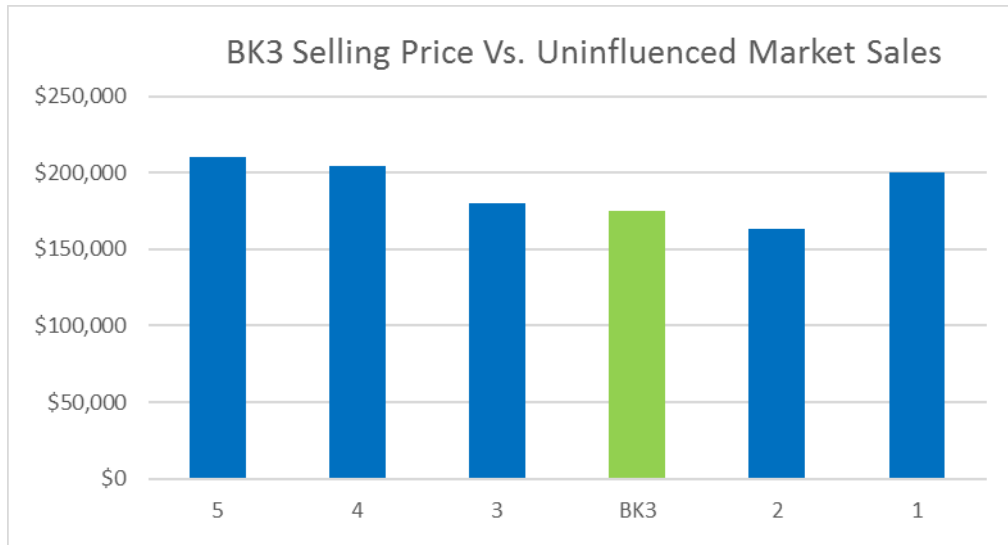
Interview Notes with Buyer:

The buyer was interested in the property because of the proximity to work. When the agent showed the property, the wind towers were not a factor in their purchase decision. Paid the same even though they do not like the noise and could see the towers from the house. Buyer stated the wind towers could be loud when you are working in the yard.

Interview Notes with Agent:

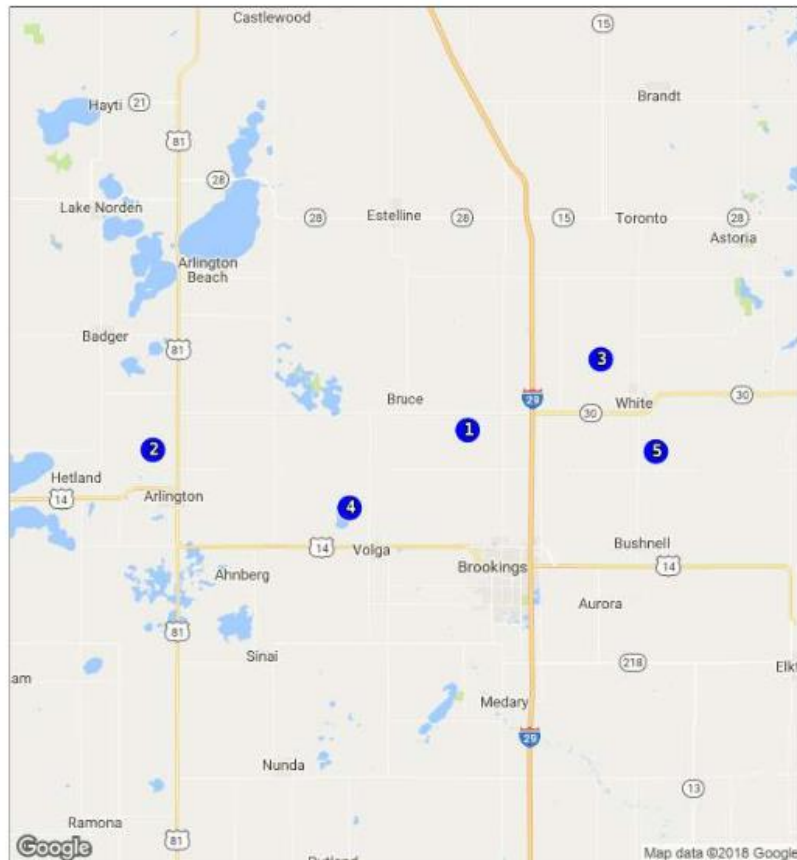
There is high demand for acreages in the Brookings market. Most buyers do not care about the wind towers. Buyers are looking for the features of an acreage. Although there have been potential buyers, some buyers refuse to look at a property near wind towers. The price seems unaffected by properties I've sold near wind towers.

Market Sales Analysis:



Sales Analysis BK3									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK3	Elkton	2011	\$175,000	1918	2,208	14.28	Story 1/2	Shed/Storage Bld	
1	Brookings	2011	\$200,000	1949	1,344	9.75	Story1/2	Barn/Shed	Inferior
			Adjustments:	Similar(=)	Inferior (+)	Inferior(+)	Similar (=)	Similar(=)	
2	White	2009	\$163,000	1910	1,762	3.84	Story 1/2	Barn/Shed	Inferior
			Adjustments:	Similar(=)	Inferior (+)	Inferior(+)	Similar (=)	Similar(=)	
3	Arlington	2011	\$180,000	1917	1,510	11.79	Story1/2	2cGarage/Sheds	Comparable
			Adjustments:	Similar(=)	Inferior(+)	Similar(=)	Similar(=)	Similar(=)	
4	Volga	2011	\$204,000	1910	2,294	12.65	Story1/2	Barn/Shed/2car	Comparable
			Adjustments:	Similar(=)	Superior(-)	Similar(=)	Similar (=)	Similar(=)	
5	White	2012	\$210,500	1938	2,405	17.12	Story1/2	Shed/Pole	Superior
			Adjustments:	Similar(=)	Superior(-)	Superior(-)	Similar(=)	Similar(=)	

Sale Location Map:



Legend

1. 46922 205TH ST, Brookings, SD 57006(11-219)
2. 45279 206TH ST, Arlington, SD 57212(11-307)
3. 47612 201ST ST, White, SD 57276(09-474)
4. 46306 209TH ST, Volga, SD 57071(11-436)
5. 20608 479th Ave., White, SD 57276(12-315)

Market Sales Analysis

Conclusion:

Five sales are analyzed in the sales grid from the market area. All sales are uninfluenced by the proximity of a wind tower. Sales one and two are inferior sales and bracket the lower end of the range. Sale five is superior and brackets the higher end of the range. Sales three and four have stronger similarities. After considering the differences in the elements of comparison, the market evidence indicates the selling price was not negatively influenced by the proximity of the wind towers.

Overall Conclusion:

An interview analysis, site visit and sales analysis has been completed for BK3. Although the buyer commented about the noise and view obstructions, the market evidence is consistent with the interview comments. The evidence suggests the overall purchase price was not negatively influenced by the proximity of the wind tower.

SALES ANALYSIS BK4	SALE No.	BK4
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 13 Acres
Improvements: 1989 Story ½
Finished Area: 2,728 SF GLA; 4500 SF Finished (Updated)
Garage: Attached 3-Stall
Features: Treed shelter belt. 50x112 & 160x120 Commercial Building
Access: Gravel road linkage; paved driveway

Sales Analysis Data:

Date of Sale: November 21, 2013
Market Exposure: MLS
Listing Price: \$569,000
Sale Price: \$530,000
Verification: Deed; Beacon; Interview with buyer, seller & agent
Type: Arm's Length Sale
DOM: 117 days

Wind Project:

Project: Buffalo Ridge
Turbine Type: Gamesa G87 2.0 MW
Hub Height/Rotor Diameter: 78/87 meters
Height From Ground: 399 feet.
Property & Wind Tower Tower #1 10,500 +/- feet east. Tower #2 9,200 +/- feet east. Tower #3
Notes: 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.

Wind Tower Aerial Map:



Site Analysis:

Site Visit Conducted by: David Lawrence
Site Visit Date: May 23, 2018
View Obstruction: Wind towers within view of residence
Noise Analysis: Operational & blade noise present during site visit.

Interview Analysis:

Interview Conducted by: David Lawrence
Party Interviewed: Buyer, Seller & Agent
Interview Date Buyer: May 23, 2018
Interview Date Seller: May 24, 2018
Interview Date Agent: May 29, 2018

Interview Notes with Buyer:

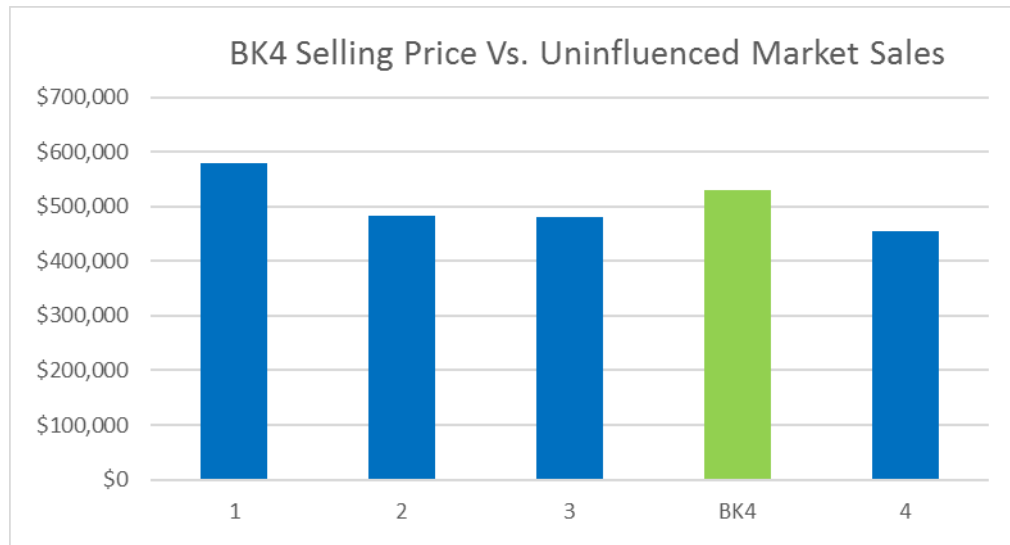
Proximity to wind turbines didn't make a difference in the purchase. Paid the same. Purchased property because it had a perfect setup with a remodeled house and two metal buildings. Towers are south of the house, so it doesn't affect the view from the house. The towers make noise and you can hear them in the yard. Doesn't matter, happy with the purchase.

Interview Notes with Seller:

We moved because we were sick and tired of the wind tower noise. We thought it would matter when we sold, but a buyer purchased the house and never mentioned the wind towers. Didn't have any issues with closing or the appraisal. We are happy not to be living next to a wind tower.

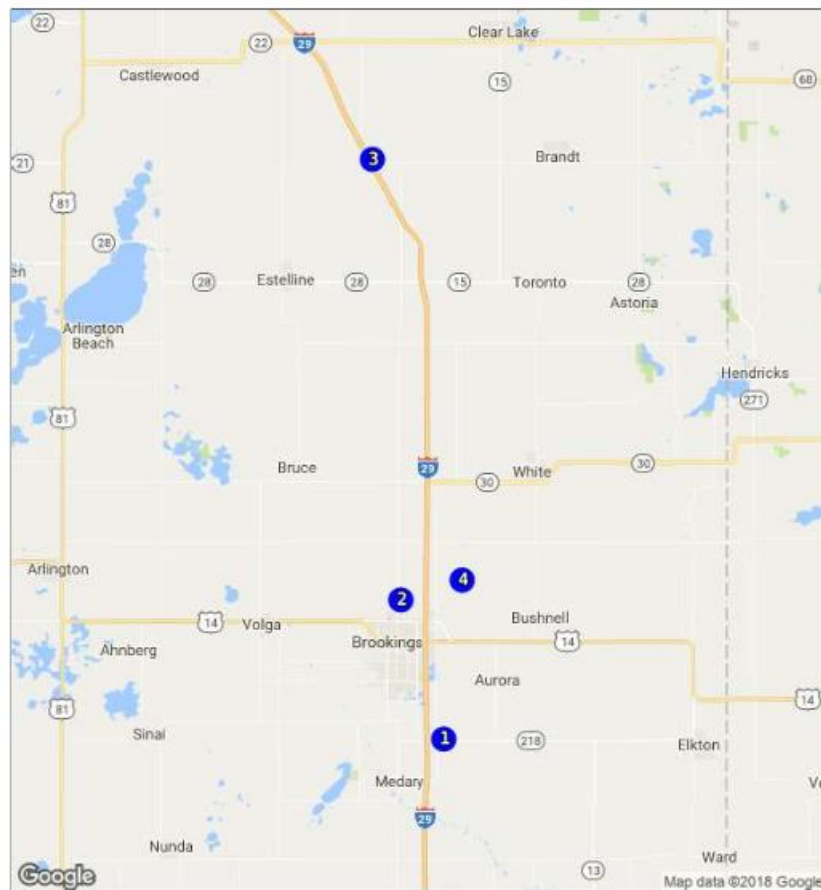
Interview Notes with Agent:

Although the sellers initially expressed concerns about the turbines, and it took four months to sell the property, the agent does not think there was any real effect with potential buyers and she did not hear that from any other realtors regarding this property. The home is an executive home and the market is smaller in that price range according to the agent.

Market Sales Analysis:

Sales Analysis BK4									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK4	Elkton	2013	\$530,000	1989	2,728	13	Story 1/2	(2) Metal Buildings	
1	Brookings	2016	\$578,264	1920	3,365	39.87	Story1/2	Barn/Shed	Superior
			Adjustments:	Inferior(+)	Superior(-)	Superior(-)	Similar(=)	Similar(=)	
2	Brookings	2015	\$482,500	2007	1,726	5	Ranch	Metal Building	Inferior
			Adjustments:	Similar(=)	Inferior(+)	Inferior(+)	Similar(=)	Inferior(+)	
3	Esteline	2016	\$480,000	2003	2,651	4.99	Story1/2	Metal Buildings	Inferior
			Adjustments:	Similar(=)	Similar(=)	Inferior(+)	Similar(=)	Similar(=)	
4	Aurora	2010	\$455,000	1890	3,342	15	Story1/2	Barn/Shed/2car	Inferior
			Adjustments:	Inferior(+)	Superior(-)	Similar(=)	Similar(=)	Inferior(+)	

Sale Location Map:



Legend

1. 47358 SD Highway 324, Brookings, SD 57006(16-276)
2. 1320 W 30TH ST, Brookings, SD 57006(14-381)
3. 46958 188TH ST, Estelline, SD 57234(15-251)
4. 47437 209th St, Aurora, SD 57002(10-196)

Market Sales Analysis

Conclusion:

No sales could be found to bracket the selling price within the time of the transaction date; therefore, the sales search was expanded into 2017. Only one sale was found prior to the selling date in 2010. Sales one, two, and three occurred after the selling date in 2015 and 2016 and located near the city of Brookings. According to the MLS data, BK4 was the highest sale price in 2013. The sales evidence suggests the selling price was not influenced by the proximity of the wind towers.

Overall Conclusion:

An interview analysis, site visit and sales analysis has been completed for BK4. The buyer's comments are consistent with the sales evidence. All evidence suggests the sale price was not affected by the proximity of the wind towers.

SALES ANALYSIS BK5	SALE No.	BK5
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 6.95 Acres
Improvements: 1936 Two-Story Design
Finished Area: 2,160 SF GLA. Basement 864 S.F.
Garage: Attached 1-Stall
Features: Treed shelter belt. Shed, storage building. Detached 1-Stall
Access: Gravel linkage

Sales Analysis Data

Date of Sale: March 26, 2014
Market Exposure: MLS
Listing Price: \$219,000
Sale Price: \$190,000 (Previous sale 2010 \$215,000)
Verification: Deed; Beacon; Interview with Buyer
Type: Arm's Length Sale

Wind Project:

Project: Buffalo Ridge
Turbine Type: Gamesa G87 2.0 MW
Hub Height/Rotor Diameter: 78/87 meters
Height From Ground: 399 feet
Property & Wind Tower 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.

Site Analysis:

Site Visit Conducted by: David Lawrence

Site Visit Date: May 23, 2018

View Obstruction: Wind towers within view of residence

Noise Analysis: None at time of site visit. (no wind present)

Wind Tower Aerial Map:**Interview Analysis:**

Interview Conducted by: David Lawrence

Party Interviewed: Buyer

Party Interviewed: Agent

Interview Date: May 23, 2018 (Buyer) May 30, 2018 (Agent)

Interview Notes with Buyer:

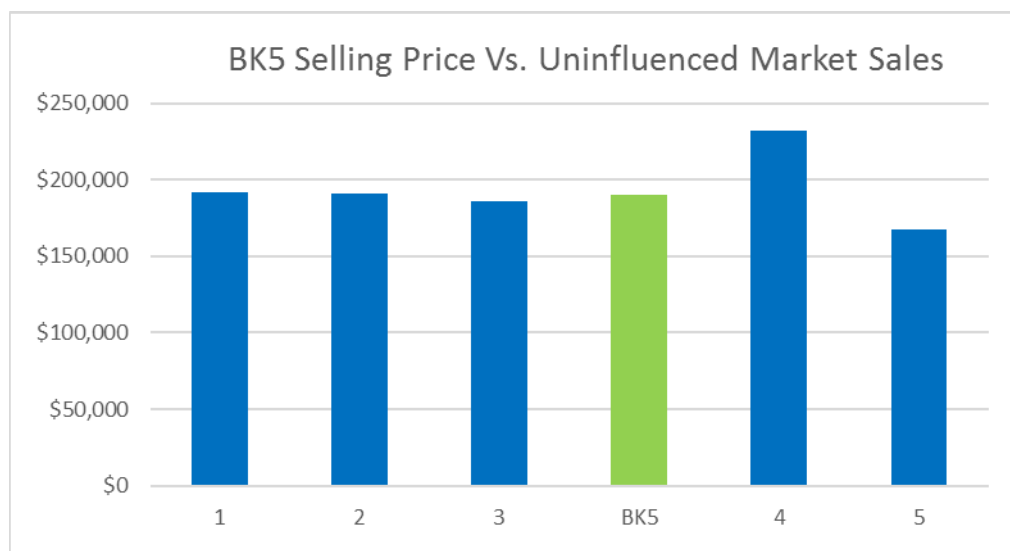
Property was listed for 3 years and seller had two previous offers fall through; seller was living alone and motivated to sell. Made a good deal. Wind towers can be noisy but didn't matter to us when we bought the home. Really no issues, besides the noise. Doesn't seem to bother wild life, deer come in the yard while the turbines are running.

Interview Notes with Agent:

There are limited acreages within the Brookings market and if the property is in good condition with the features of an acreage, it sells. Lots of buyers looking for acreages. The price was reduced (BK5) because of a dysfunctional floor plan and seller motivations. The floor

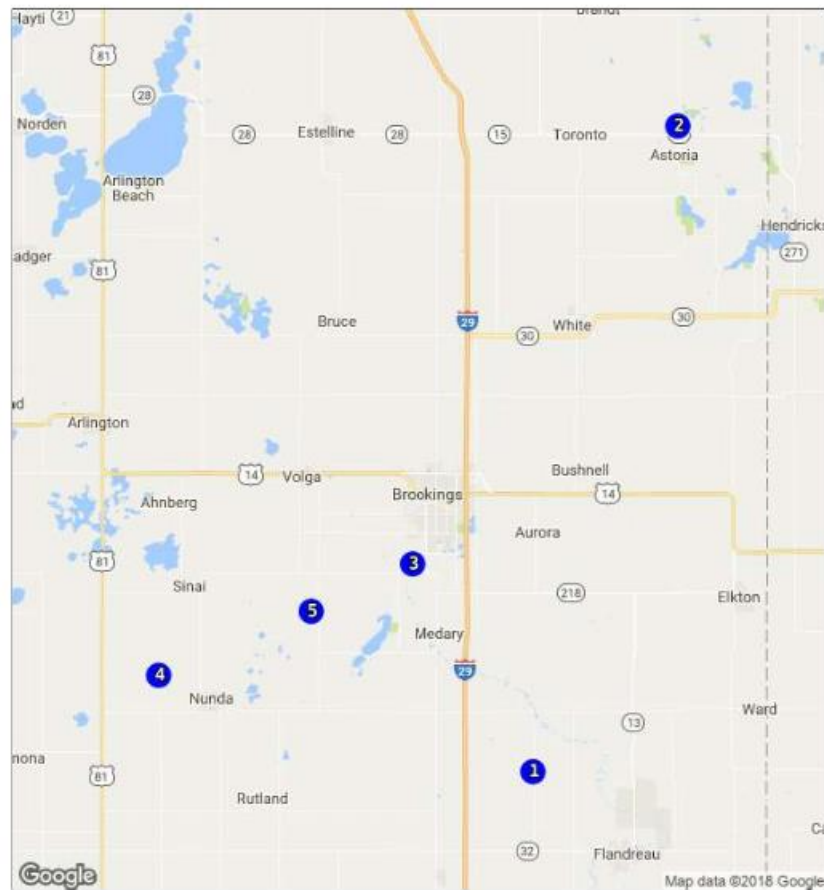
plan eliminated older buyers. Steep stairs. Old house and new house addition with weird layout. During the open house, buyers did not comment about the proximity of the wind towers, even though you can hear them in the yard. Distance from Brookings is what effects the price with acreages, not wind towers. If a property is past the 15-mile mark, price drops considerably. Price/distance relationship. Closer to Brookings prices increase. Acreage buyers are young people with kids. Lots of work to maintain an acreage. If it is too far from town, less buyers. No negative effects on purchase price from wind towers. Buyers did not seem to comment or raise concerns.

Market Sales Analysis:



Sales Analysis BK5									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK5	Elkton	2014	\$190,000	1936	2,160	6.95	Story 1/2	Shed/Storage Bld	
1	Flandreau	2014	\$191,900	1880	1,950	8.95	Story1/2	Barn/Shed	Comparable
		Adjustments:		Similar(=)	Similar(=)	Similar(=)	Similar(=)	Similar(=)	
2	Volga	2015	\$190,600	1918	1,680	15	Story 1/2	Barn/Shed	Inferior
		Adjustments:		Similar(=)	Inferior(+)	Superior(-)	Similar(=)	Inferior(-)	
3	Astoria	2014	\$186,000	1910	1,472	14	Story1/2	Outbuildings	Comparable
		Adjustments:		Similar(=)	Inferior(+)	Superior(-)	Similar(=)	Similar(=)	
4	Brookings	2013	\$232,000	1912	2,075	30.59	Story1/2	Barn/Shed/2car	Superior
		Adjustments:		Similar(=)	Inferior(+)	Superior(-)	Similar(=)	Superior(-)	
5	Nunda	2013	\$167,900	1922	1,198	14.63	Story1/2	Shed/Barn/Metal	Inferior
		Adjustments:		Similar(=)	Inferior(+)	Superior(-)	Similar(=)	Superior(-)	

Sale Location Map:



Legend

1. 22603 476th Ave., Flandreau, SD 57028(14-156)
2. 19367 483RD AVE, Astoria, SD 57213(13-122)
3. 612 Wicklow Ln, Brookings, SD 57006(13-312)
4. 22125 457th Ave., Nunda, SD 57050(13-147)
5. 46464 218TH ST, Volga, SD 57071(14-579)

Market Sales Analysis

Conclusion:

Five sales uninfluenced by the proximity of wind towers are used for the analysis. The sales have similar highest and best use as acreages in the Brookings rural market. Sale BK5 is bracketed by the market sales. Sales two and five are inferior sales. Sale four is a superior sale. Sales one and three are the most similar. The market evidence suggests the selling price of BK5 was not influenced by the proximity of the wind towers.

Overall Conclusion:

An interview analysis, site visit, and sales analysis have been completed for sale BK5. The buyer's comments indicated the purchase price was influenced by seller motivations and not by the presence of the wind towers. The market data is consistent with the interview analysis and suggests the proximity of the wind towers did not negatively influence the selling price of BK5

SALES ANALYSIS BK7	SALE No.	BK7
	STATE	South Dakota
	COUNTY	Brookings



Property Characteristics:

Highest & Best Use: Rural Acreage
Land Size: 13.35 Acres
Improvements: 1992 Ranch
Finished Area: 1680 SF GLA; 1680 L.L.
Garage: Attached 2-Stall
Features: Treed shelter belt. Metal outbuilding
Access: Gravel road linkage

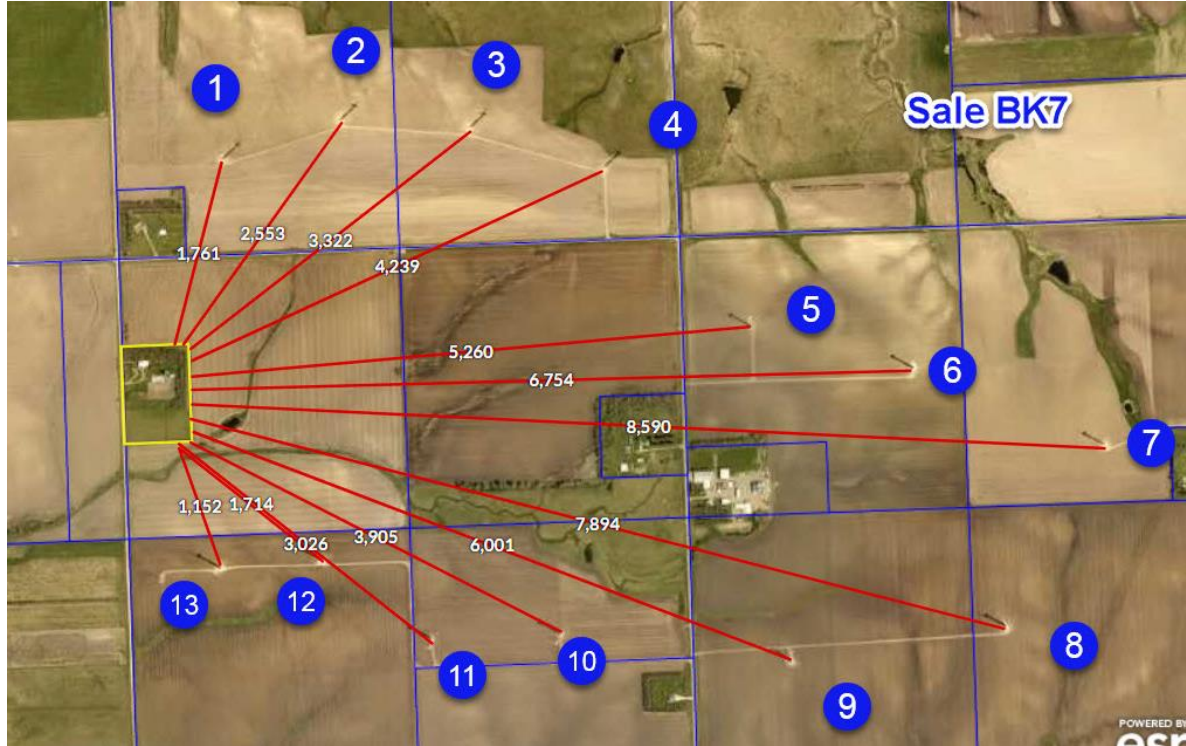
Sales Analysis Data:

Date of Sale: August 4, 2010
Market Exposure: Word of mouth
Sale Price: \$180,000
Verification: Deed; Beacon; Interview with Buyer
Type: Arm's Length Sale (estate sale, purchased based on appraisal)

Wind Project:

Project: Buffalo Ridge
Hub Height/Rotor Diameter: 78/87 meters
Height from Ground: 399 feet
Wind Tower Property Notes: 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

Wind Tower Aerial Map:



Site Analysis:

Site Visit Conducted by: David Lawrence
Site Visit Date: May 23, 2018
View Obstruction: Wind towers within view of residence
Noise Analysis: Operational & blade noise present during site visit.

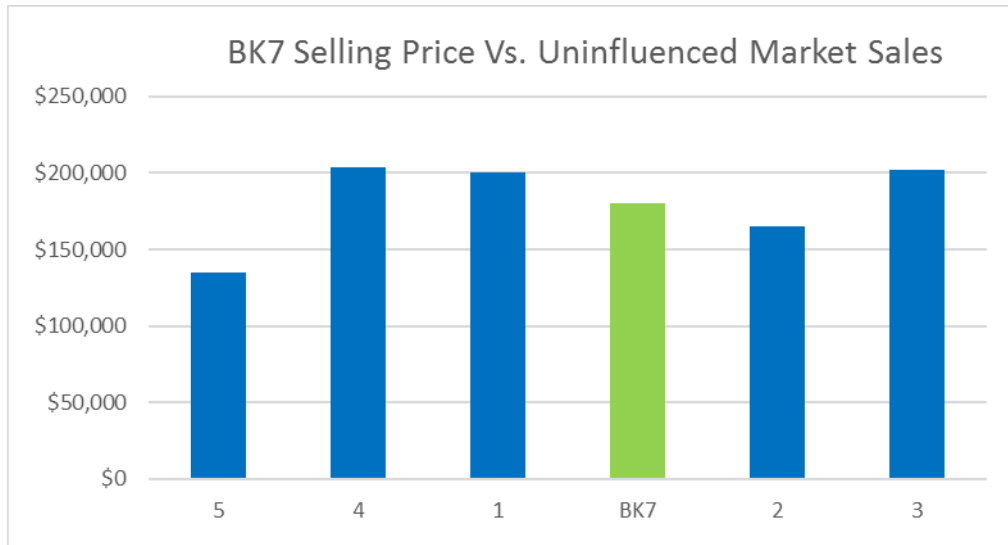
Interview Analysis:

Interview Conducted by: David Lawrence
Party Interview: Buyer
Interview Date Buyer: May 30, 2018

Interview Notes with Buyer:

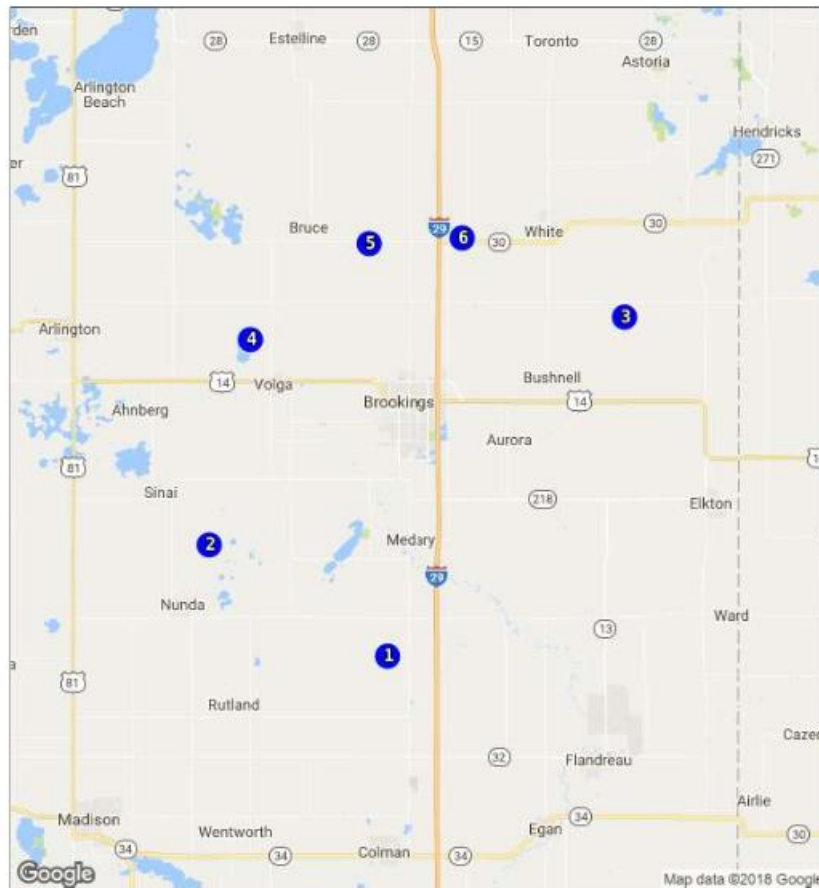
Property value has increased by at least \$75,000 since purchase. No issues or concerns with living near wind towers. There is no effect on the value. No effect to the animals. Can hear a faint "swoosh" noise. No big deal.

Market Sales Analysis:



Sales Analysis BK7									
Sale No.	Location	Sale Date	Price	Year/E.A.	GLA	Acres	Style	Outbuildings	Overall Analysis
BK7	Elkton	2010	\$180,000	1992	1,680	13.35	Ranch	Outbuild/2Car	
1	Volga	2011	\$200,000	2005	1,232	10	Ranch	Barn/2Car	Superior
		Adjustments:		Superior(-)	Inferior(+)	Superior(-)	Similar (=)	Similar(=)	
2	Colman	2009	\$165,000	2001	910	22.03	Ranch	None	Inferior
		Adjustments:		Similar(=)	Inferior (+)	Superior(-)	Similar (=)	Inferior(-)	
3	White	2010	\$202,000	1967	1,304	12.78	Ranch	Metal Building/Shed	Superior
		Adjustments:		Similar(=)	Inferior(+)	Similar(=)	Similar(=)	Superior(-)	
4	Volga	2011	\$204,000	1910	2,294	12.65	Story1/2	Barn/Shed/2car	Superior
		Adjustments:		Similar(=)	Superior(-)	Similar(=)	Similar (=)	Superior(-)	
5	Brookings	2010	\$135,000	1974	1,288	7.5	Ranch	Shed/2Car	Inferior
		Adjustments:		Similar(=)	Inferior(+)	Inferior(+)	Similar (=)	Inferior(+)	

Sale Location Map:



Legend	
1. 47005 225th St., Colman, SD 57017(09-595)	4. 46306 209TH ST, Volga, SD 57071(11-436)
2. 21935 461ST AVE, Volga, SD 57071(11-226)	5. 20456 469TH Ave, Brookings, SD 57006(09-581)
3. 20787 482ND AVE, White, SD 57276(10-599)	6. 47318 SD Highway 30, Brookings, SD 57006(10-430)

Market Sales Analysis

Conclusion:

Six sales are utilized in the grid that is not influenced by the proximity of a wind tower. All sales share in highest and best use as a rural acreage and sold around the same time as BK7. After analyzing the elements of comparison, the market sales bracket the selling price of BK7 and suggest the selling price has not been negatively affected by the proximity of the wind tower.

Overall Conclusion:

An interview analysis, site observation, and sales analysis were completed for sale BK7. The market sales and buyer interview comments are consistent. The evidence suggests wind towers have not negatively impacted the selling price of BK7.