BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DEUEL HARVEST WIND ENERGY LLC FOR A PERMIT OF A WIND ENERGY FACILITY AND A 345-KV TRANSMISSION LINE IN DEUEL COUNTY ADDITIONAL RESPONSE TO STAFF'S SECOND SET OF DATA REQUESTS TO JON HENSLIN

EL18-053

Below, please find Staff's Second Set of Data Requests to Mr. Jon Henslin. Please submit responses within 10 business days, or promptly contact Staff to discuss an alternative arrangement.

2-1) Referring to the response of Jon Henslin to Applicant Data Request 1-11, you state "I am concerned that this project will negatively impact my property." Are you aware of any market sales that supports the assertion that there is adverse effects on the selling price of rural residential properties in proximity to a wind turbine?

Yes

If yes, please provide all information you are aware of, including address, of the market transaction.

Gibbons, Stephen (2015) Gone with the wind: valuing the <u>visual impacts</u> of wind turbines through house prices. Journal of Environmental Economics and Management.

Regarding home prices: ... the largest wind farms (20+ turbines) reduce prices by 12% within 2 km, and reduce prices by small amounts right out to 14 km (by around 1.5%)

Y. Sunak and R. Madlener (2013) The Impact of Wind Farms on Property Values: A Geographically Weighted Hedonic Pricing Model

"Regarding the wind farm related variables, most importantly, the inverse distance to the nearest turbine is negatively significant across all models. Therefore, a 1% increase in the inverse distance (i.e. a decrease of distance to the nearest turbine) decreases the property sales price by -.047% to -.098%. Hence, within the first

kilometer around the wind farm, prices decreased by 2 1.5% to 29.7% according to the estimations.

Yasin Sunak and Reinhard Madlener (2014) Local Impacts of Wind Farms on Property Values: A Spatial Difference-In-Difference Analysis.

TABLE 4: 'Visual Impact Levels' and the distribution of observations VIL	Visibility	Coefficient range (a×b×c×d)	No. of observations (total 905)	Average number of turbines visible	Average distance to nearest turbine (m)
6	Extreme	1 - 0.8	65 (7.2%)	10	1,190
5	Dominant	0.8 - 0.6	174 (19.2%)	10	2,297
4	Medium	0.6 - 0.4	141 (15.6%)	7	3,087
3	Minor	0.4 - 0.2	168 (18.6%)	3	3,509
2	Marginal	0.2 - > 0	60 (6.6%)	2	4,424
1	No view	0	297 (32.8%)	-	-

"Most importantly, negatively significant impacts are found for properties that were rated having an extreme (*VIL6*), dominant (*VIL5*), and medium (*VIL4*) view of the wind farm *ex-post* construction. Properties with an **extreme view** on a wind farm site show a decrease in value of 10.3% (at the 10% significance level). Properties that obtained a **dominant view** dropped in value by about 16.8% (at the 1% significance level). Also properties with a **medium impact** level (*VIL4*) decreased in price by about 9.5% (at the 5% significance level) in consequence of the wind farm construction.

Overall, about 42% of the properties that were affected by the construction of the wind farm experienced property devaluation. According to Table 4, these are located, on average, within the first three kilometers to the nearest turbine and have an average unobstructed view on seven to ten turbines."

Links for property value appraisals regarding industrial wind

Note: many of the documents contain market analysis that support the assertion, there is adverse effects on the selling price of rural residential properties in proximity to a wind turbine

Lansink appraisal

www.lansinkappraisals.com/downloads/MPAC%20v%20Lansink;%20McCann%20and%20Gulden%20Reviews,%20June%202014.pdf

Heintzelman/Tuttle – download PDF

https://www.researchgate.net/publication/228267728_Values_in_the_Wind_A_Hedonic_Analysis_of_Wind_Power_Facilities

Mike McCann appraisal

 $\underline{http://iiccusa.org/wp-content/uploads/2011/03/McCann-Appraisal-LLC-writtentestimony-re-Setbacks-property-values-June-8-2010-1.pdf$

Mike McCann review of Berkley Study

 $\frac{http://iiccusa.org/wp-content/uploads/2011/03/McCann-Review-of-Berkeley-Study.pdf}{}$

Gardner appraisal

https://docs.wind-watch.org/gardner_wind-property-values_2_13_09.pdf

Kurt Kielisch appraisal

http://www.acousticecology.org/wind/winddocs/property/Kielisch%20-%20Wind%20+%20Property%20Value.pdf

Luxemburger appraisal

www.bape.gouv.qc.ca/sections/mandats/eole-mrc-erable/documents/DC5.pdf

Lincoln County Wisconsin Report

http://www.aweo.org/windlincoln.html

See Brenda Taylor's email on the next page.

---Original Message---

From: Brin4tay

Sent: Wed, Feb 22, 2017 7:24 am

Subject: Requested Property Value Information

Pam,

This is information that was requested by a couple of Commissioners and Mr. Knight. Please forward this email to Mr. Knight and all of the Commissioners.

Thank you,

Brenda Taylor

This letter is provided in response to the request by the board made at the Feb. 7, 2017 regular Commissioners' Meeting regarding Wind Tower effects on Property Values.

I spoke to Mr. David Janes of the Toronto area about his experience trying to sell his home. He told me that he tried to sell it himself for a short period of time. I also spoke with a person who looked at Mr. Janes' home during that time and decided his family could not live there because of all of the wind towers surrounding the property. Mr. Janes then contacted two realtors, one located in Sioux Falls and the other in Brookings. They both recommended to Mr. Janes that putting his home up for auction would be his best option.

After speaking with an appraiser and several realtors, the consensus was that it would be costly and would take many weeks, even months, to compile actual data to prepare a complete report. It was, however, recommended that governing bodies should pursue such information.

Katie Murray, a realtor with Century 21 in Brookings, did state that homes located near wind towers absolutely

experience properly devaluation. She gave as an example a home located in the middle of a wind farm in Brookings Co. which was listed and viewed 15 times. All of the prospective buyers walked away, not wanting to live near wind towers. She stated that homes that would normally sell quickly are not selling as they should when located near wind towers. A statement she sent via e-mail follows:

"In my experience, wind towers do affect a buyers desire to purchase a property. One particular listing was in a wind farm, had numerous showings, and the majority of feedback was an issue with the towers. This home was priced well, comfortable distance to a city, and almost fully remodeled. It should have sold quickly, but did take longer and for assumably [sic] less than what they would've gotten had the wind towers not been so close."

I also contacted an appraiser, Mr. Brian Gatzke, ARA, MBA, Certified Appraiser from Northern Plains Appraisals located in Brookings. Mr. Gatzke told me about two homes that were located in Brookings Co. before the wind towers went up and the homeowners tried to sell after the towers were built. Both homes were greatly discounted before they could be sold. One was sold to an adjacent landowner. Mr. Gatzke also said that wind towers do have a negative impact on residential properties. I asked him if appraisers take into account the surroundings of a residential property when writing their reports, and he replied, "Yes, appraisers do have rules and need to verify market conditions and the surroundings of a property and it does show up in a report. Surroundings do have an impact on appraisal values." He has concluded that wind towers do, in fact, negatively impact appraisal values. He also suggested that counties should do complete and thorough investigations giving three examples how this might be accomplished. It is a costly and time consuming endeavor.

My goal was to gather local information only regarding residences located near wind towers. Again, those who talked to me stated that they did not have time to do actual research but shared their experiences. I attempted contact with other resources that chose not to respond.

Mike and I have provided emails with links to property devaluation studies of residences due to close proximity to wind towers done by Michael McCann. Please feel free to contact me if you would like more information.

In light of what we have learned, we strongly advocate for Property Value Guarantees in the Ordinance.

Thank you for your time,

Brenda Taylor