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	* * * * * * *	**STAFF'S POST-HEARING BRIEF** **EL18-053**

COMES NOW Commission Staff by and through its attorneys of record and hereby files this post-hearing brief in the above-captioned siting proceeding.

I. Preliminary Statement

For purposes of this brief, the South Dakota Public Utilities Commission is referred to as "Commission"; Commission Staff is referred to as "Staff"; Deuel Harvest Wind Energy LLC is referred to as "Deuel Harvest" or "Applicant." Reference to the transcript of the Evidentiary Hearing will be "EH", followed by the appropriate page number. Prefiled testimony that was accepted into the record will be referred to by the exhibit number.

II. Jurisdictional Statement

The Applicant filed for a permit to construct a wind energy facility and a 345-kV electric transmission line. The Commission has jurisdiction over siting permits for wind and transmission facilities pursuant to SDCL Chapter 49-41B. SDCL 49-41B-24 requires the Commission to make complete findings in rendering a decision on whether the permit should be granted, denied, or granted with conditions within twelve months of receipt of the initial application for a transmission facility. SDCL 49-41B-25 requires a decision within six months for a wind energy facility.

III. Statement of the Case and Facts

On November 30, 2018, the Applicant filed a siting permit application pursuant to SDCL 49-41B-4 to construct the Deuel Harvest North Wind Farm and 345-kV transmission line (Project), a wind energy facility located on approximately 48,730 acres of land in Deuel County, South Dakota, in the townships of Portland, Lowe, Altamont, Glenwood, and Herrick. The total installed capacity of the Project would not exceed 310.1 MW nameplate capacity. The Project includes up to 112 wind turbine generators, access roads to turbines and associated facilities, underground electrical power collector lines connecting the turbines to the collection substation, an operation and maintenance facility, and temporary construction areas, including crane paths, public road improvements, a laydown yard, and a concrete batch plant(s) (as needed), and four permanent meteorological towers. The Project would interconnect to the regional electric grid along the Big Stone to Brookings transmission line via a new substation located in Glenwood Township. The Project will result in the installation of approximately 150-feet of overhead transmission line.

Pursuant to ARSD 20:10:22:40, the Commission established a deadline of January 29, 2019, for submission of applications for party status. Nine individuals and one entity were granted party status. No applications for party status were denied. Three persons later requested and were granted withdrawal of party status.

IV. Statement of the Issues

The issue to be decided in this matter is whether pursuant to SDCL 49-41B and ARSD 20:10:22, the permit requested by the Applicant for a wind energy facility should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. Specifically, the

Commission must determine whether the Applicant met its burden of proof with respect to each element of SDCL 49-41B-22 for the requested permit.

V. Burden of Proof

SDCL 49-41B-22 provides that the Applicant has the burden of proof to establish that:

> (1) The proposed facility will comply with all applicable laws and rules;
> (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
> (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

In addition, the administrative rules state that the Applicant "has the burden of going forward with presentation of evidence…" ARSD 20:10:01:15.01.

Therefore, the next question is: What standard shall be applied to determine if the Applicant has met the burden of proof? The general standard of proof for administrative hearings is by preponderance, or the greater weight of the evidence. *In re Setliff*, 2002 SD 58, ¶13, 645 NW2d 601, 605. It is erroneous to require a showing by clear and convincing evidence. *Dillinghan v. North Carolina Dept. of Human Resources*, 132 N.C. App. 704, 513 S.E.2d 823 (1999). "Preponderance of the evidence is defined as the greater weight of evidence." *Pieper v. Pieper*, 2013 SD 98, ¶22, 841 NW2d 787 (citation omitted). Black's Law Dictionary defines preponderance of the evidence as:

> The greater weight of the evidence, not necessarily established by the greater number of witnesses testifying to a fact but by evidence that has the most convincing force; superior evidentiary weight that, though not sufficient to free the mind wholly from all

> reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other. This is the burden of proof in most civil trials, in which the jury is instructed to find for the party that, on the whole, has the stronger evidence, however slight the edge may be.

Black's Law Dictionary (10th ed. 2014).

Each element must be established by reliable, probative, and substantial evidence of such sufficient quality and quantity that a reasonable administrative law judge could conclude that the existence of facts supporting the claim are more probable than their nonexistence. *U.S. Steel Min. Co., Inc. v. Director, Office of Worker's Compensation Programs, U.S. Dept. of Labor,* 187 F. 3d 384 (4th Cir. 1999).

If the Applicant meets its burden of proof, South Dakota code does not give the Commission any discretion regarding whether to grant a permit. The siting chapter provides no authority for the Commission to search outside of the four elements listed in SDCL 49-41B-22 for additional burdens of proof in deciding whether to grant or deny an application.

However, the Legislature has clearly indicated that it intended for the Commission to very carefully and thoroughly scrutinize applications for siting permits. This is evidenced by its passage of SDCL 49-41B-12, which provides for a deposit and a filing fee to investigate, review, process, and notice the application. Because the Legislature established a fee to support the investigation into permit applications, it is apparent that the Legislature intended for an extensive and complete review of the application. It would not have done so if it did not expect this to be a high bar. Such a high bar protects the land and the citizens of this state, as well as adds legitimacy to all applications that are granted.

VI. Argument and Analysis

Wind energy facilities "may not be constructed or operated in this state without first obtaining a permit from the Public Utilities Commission." SDCL 49-41B-l. The Project is greater than 100 megawatts and is therefore a wind energy facility for the purposes of the SDCL 49-41B.

Many of the elements of 49-41B-22 have been briefed ad nauseum by Staff in previous dockets. Thus, for the sake of brevity we will brief those issues which are unique to this docket and rely on precedent for those that have been well-litigated.

a. Setbacks from Lake Alice

Prior to and throughout the hearing, there was much discussion revolving around whether or not the Project would comply with all applicable laws and rules. The discussion centered largely on whether the Project would comply with a Deuel County setback ordinance regarding Lake Alice or, arguably, the Lake Park District of Lake Alice. In Staff's prefiled testimony, witness Jon Thurber discussed Staff's interpretation of the ordinance.[1] Mr. Thurber stated that Staff analyzed the Application relying on the ordinance using the interpretation that the two-mile setback is from the Lake Park District, as that is the interpretation conveyed to Staff by a county official.[2] However, in his testimony, Mr. Thurber stated that the interpretation is a legal issue, thus Staff would opine on the interpretation in its brief.

Regardless of what the setback language means, the Project will indeed have to comply with that language. Applicant has the burden pursuant to SDCL 49-41B-22(1) to show that the *proposed* facility will comply with all applicable laws and rules. The proposed facility includes nineteen turbines within two miles of Lake Alice. The ordinance provides in relevant part:

[1] Exhibit S2, P. 6
[2] Exhibit S1, P. 23

"Distance from the Lake Park District located at Lake Cochrane 3 miles, Lake Alice 2 miles and 1 mile from the Lake Park District at Bullhead Lake."[3]

"An ordinance or portion thereof is ambiguous when it is capable of being understood only by reasonably well-informed persons in either of two or more senses." *Peters v. Spearfish ETJ Planning Comm'n*, 1997 S.D. 105, ¶ 8, 567 N.W.2d 880, 883, Citing, ***In re Famous Brands, Inc.***, 347 N.W.2d 882, 886 (S.D.1984) "The purpose of the zoning districts is to be gathered from the whole act, and where a word or term is susceptible to two constructions, a meaning must be ascribed which carries out the purpose of the act." *Id*. at ⁋ 13.

If the zoning ordinance requires a two-mile setback from Lake Alice, what turbines would that impact? Several times, it has been eluded to that there are nineteen turbines within two miles of Lake Alice. This number appears to come from Exhibit F to the Affidavit of Christina Kilby filed on March 11, 2019.

If the Commission assumes the lake boundaries and property lines depicted on Exhibit A26 are accurate, turbines 30, 31, 32, and 44 are not within two miles of the lake. However, the base of the turbines are not drawn to scale on Exhibit A26, so to demonstrate compliance with a two-mile setback from Lake Alice, Applicant should make an informational filing that depicts the setbacks as measured from the edge of the property likes abutting Lake Alice to the base of the tower. The measurement to the base of the tower comes from the provision in the county ordinance that states that "[s]etback requirements for [t]owers shall be measured from the base of the [t]ower to the property line of the parcel of land on which it is located."[4]

[3] Exhibit K21, P. 68.
[4] Exhibit K21, P. 75

Staff enumerated a recommended condition in the prefiled rebuttal testimony of staff witness Jon Thurber.[5] Staff stands by that condition. In order to resolve the Lake Alice issue, Staff recommends that in its Order, the Commission adopt the following findings of fact.

1. It is clear from the record that the county's intent was to craft an ordinance that created a two-mile setback from the Lake Park District at Lake Alice, although that was not accomplished by the wording of the ordinance as it is.
2. The county has a process by which it can amend the ordinance to add the desired language. Alternatively, any interested party could petition a court of competent jurisdiction to interpret the ordinance.
3. Because the county is in the best position to ensure that the intent of its ordinances is clear and carried, the county should be given an opportunity to fix or clarify its ordinance.

b. Setbacks from Businesses

As discussed in the previous subsection, Applicant must demonstrate that the Project will comply with local ordinances. Much discussion has centered on whether the layout complies with setbacks from businesses, specifically from South Dakota Pheasant Hunts, owned by intervenors Heath and Will Stone. The Deuel County ordinance provides:

> Distance from existing Non-Participating residences and businesses shall be not less than four times the height of the wind turbine. Distance from existing Participating residences, business and public buildings shall be not less than fifteen hundred feet. Non-Participating property owners shall have the right to waive the respective setback requirements. For purposes of this section only, the term "business" does not include agricultural uses.[6]

The issue is whether the term "business" applies to the Stones' hunting business or only to those businesses that are physical structures. Staff notes that the special exception permit (SEP) for the Project stated that the term "business" applies only to a physical structure,[7] but

[5] Exhibit S2, P. 6
[6] Exhibit K21, P. 68.
[7] Exhibit A1, P. 246

because that SEP was found to be invalid because of undue bias, one cannot rely on any language therein for guidance.

" 'A[n ordinance] or portion thereof is ambiguous when it is capable of being understood only by reasonably well-informed persons in either of two or more senses.' " *In re Famous Brands, Inc.*, 347 N.W.2d 882, 886 (S.D.1984). Because the term "business" can reasonably be interpreted as a business structure or a business location, the latter of which might not necessarily be a physical structure if the business is something like a hunting operation or golf course.

When a term is ambiguous, "the intent of the zoning regulations must be ascertained and considered when construing an ordinance." *Peters v. Spearfish ETJ Planning Com'n,* 1997 S.D. 105, ¶ 13, 567 N.W.2d 880, 885. "The purpose of the zoning districts is to be gathered from the whole act, and where a word or term is susceptible to two constructions, a meaning must be ascribed which carries out the purpose of the act." *Id.* (citations omitted).

Because this is a matter of statutory construction, not an evidentiary issue, the Commission is able to look outside the record for information. The Deuel County Zoning Board (Zoning Board) has had another occasion to interpret this language of the ordinance recently. At a meeting of the Zoning Board on November 19, 2018, Deuel County Board of Adjustment considered proposed findings for the Crowned Ridge II Wind Project.[8] Unlike the special exception permit for Deuel Harvest, the special exception permit for Crowned Ridge II remains valid, however, Staff does note that the Crowned Ridge II permit has been appealed to the circuit court.[9] The appeal is pending at the time of this filing. Paragraph 12 of the Crowned Ridge II

[8] See Attachment 1, Minutes
[9] See case 19CIV18-000061

special exception permit states that "[t]he reference to business in the ordinance is defined as a physical structure."[10] This shows the ordinance applies the term "business" to a structure.

Without understanding what impact is intended to be mitigated with the 2,000-foot setback from a business, Staff has no basis upon which to make a recommendation as to whether the setback should be applied to the Stones' hunting property.

c. Shadow Flicker

After considering all of the evidence presented at the evidentiary hearing, Staff agreed to a shadow flicker condition that provides that shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver.

The rationale for Staff's agreement to this condition is the fact that this condition is consistent with past precedent in the majority of wind siting permits from this Commission in recent years.[11] There is no information in the record supporting shadow flicker becoming a health or safety hazard at a specific duration of occurrence. Without specific evidence to support doing so, Staff cannot recommend a specific limit for shadow flicker. Thus, Staff relies on Commission precedent and common practice in zoning regulation across the United States.

d. Ice Throw

Mr. Garret Homan asserts that the project as proposed does not comply with 49-41B-22(3), because the proposed setbacks do not meet the wind turbine manufacturer's, General Electric (GE), recommendations for the required safety distances surrounding turbines in

[10] See Attachment 1, P. 6

[11] The permit granted in EL18-026 had a shadow flicker condition that included minutes per day, however, that was due to a unique county requirement that also utilized minutes per day.

freezing weather to mitigate hazards associated with ice throw. Deuel Harvest is utilizing an ice detection system that does not employ an ice detector, as such, Mr. Homan argues for a greater setback than the GE's recommended setback guidance of 1.1 times the turbine tip height, with a minimum setback of 170 meters (approximately 558 feet), to address the risk of ice throw.

The Applicant obtained an e-mail from GE[12] that confirms the ice detection system proposed by Deuel Harvest is appropriate to assess ice build-up on the blades, and that the turbine manufacturer setback guidance is intended to cover residual risks of blade icing. For the two turbine models considered in this Application, 558 feet is greater than 1.1 times the turbine tip height and establishes the manufacturer's recommended setback to address the risk of ice throw.

Staff recommends the manufacturer-recommended setback of 558 feet to address the risks of ice throw. Staff acknowledges its recommendation is more stringent than the minimum property line setback established in South Dakota law, SDCL 43-13-24, but it is supported by the evidence in the record.

e. Property Values

Ms. Kilby asserts that negative comments from some market participants in real estate transactions in the proximity of a wind turbine show that property values are adversely affected by wind turbines. In support of this contention, she references the testimony of David Lawrence in Docket EL18-003 (Exhibit A5-1), specifically the interviews conducted by Mr. Lawrence. However, when the actual transactions of those market participants were analyzed, Mr. Lawrence stated the sales analysis supports the presumption there have been no adverse effects

[12] Exhibit A40

on the selling price of rural residential properties in proximity to a wind tower. Through his testimony, Mr. Lawrence did caution that his market research included a limited population upon which to base conclusive results and he did not rule out that an individual property could be adversely impacted from the presence of a wind turbine.

Staff believes Mr. Lawrence's compared sales analysis serves as a good example of the type of evidence needed to support a claim of adverse impact to property value. Negative anecdotal comments are not a substitute for market analysis. Without compared sales analysis as evidence that shows that property values are adversely affected by wind turbines, Staff has no basis to consider a property value guarantee.

f. Homan Field private airport

Another issue of much note in this docket is Homan Field, the private airstrip owned by intervenor John Homan, and utilized by intervenor Garrett Homan. Staff defers to the county for zoning and control of private airstrips. The Project does not currently have a special exception permit, however, if and when Applicant obtains a special exception permit, whether or not to allow turbines in close proximity to an airstrip is within the county's discretion. Unlike the lake and business setbacks discussed earlier, this issue does not implicate the requirement that the Project comply with all laws and rules, as the county ordinance says nothing of setbacks from airstrips.

It is Staff's opinion that setbacks, if any, from private airstrips should be handled at the county level. The Federal and State agencies with regulatory authority over aviation hazards have issued guidance that private airport hazards should be addressed by Deuel County.[13] In a

[13] Exhibit S6, Exhibit_JT-10, P. 15 of 52, Exhibit S2, Exhibit_JT-7, Page 3 of 4.

response to a Staff data request, John Homan provided a letter from the Federal Aviation Administration (FAA) which stated, "The FAA cannot prevent the construction of structures near an airport. The airport environment can only be protected through such means as local zoning ordinances, acquisitions of property in fee title or aviation easements, letters of agreements, or other means. This determination in no way preempts or waives any ordinances, laws, or regulations of any government body or agency."[14] Staff also reached out to the South Dakota Department of Transportation and received the following response: "In this instance, it is the Department's belief Deuel County would be the political subdivision required to address any airport hazards or zoning violations which affect a private airport or which are not violations of the permit process in SDCL Ch. 50-9."[15]

In accordance with regulations, John Homan obtained a special exception permit for a private airstrip from the Deuel County Board of Adjustment on the condition that the John Homan sign a letter of assurance[16] acknowledging that the only way he can be guaranteed unrestricted access to the airspace over his neighbor's property is to secure those rights from the adjacent property owners. During questioning of John Homan by Commissioner Nelson, Mr. Homan confirmed the plain language of the letter of assurance in the following exchange:

> COMMISSIONER NELSON: In your Rebuttal Testimony you included this letter of assurance that you signed acknowledging that the only way you could be guaranteed unrestricted access to airspace on a neighbor's property would be to secure those rights from the adjacent owner. It appears to me that you knew that up front before you began constructing your airstrip but today you're here asking us for something different than that. Is that correct.

[14] Id.
[15] Exhibit S2, Exhibit_JT-7, P. 3
[16] Exhibit J19

> THE WITNESS: The letter of assurance that we signed was requested bit zoning board after, you know, three, four months of negotiations with them. The letter we agreed to states what is in the law, that if we request unrestricted airspace, that we would need to get -- at the time, as I understand, there were no restriction -- there was no obstacles in the area that would restrict our permit at the time that I was granted the permit for it.
>
> COMMISSIONER NELSON: And so perhaps what they were telling you by making sure you signed this is if in fact you wanted to guarantee that it stayed that way you would need to acquire those rights; is that correct?
>
> THE WITNESS: That I think is the way I understand the law itself. Correct.

If rights have not been secured from property owners neighboring Homan Field, little can be done to address the Homans' concerns. Staff does not advocate that the Commission preempt Deuel County's private airstrip special exception permit and the letter of assurance that went with it.

However, if the Commission does find that it is within this Commission's purview to address the airstrip, Staff agrees that it is plausible that turbulence from the turbines could occur, and less experienced pilots could be affected. Garrett Homan, whom the record indicates would be the primary user of the airstrip, testified that he has approximately 150 hours of flight experience as a pilot.[17] Thomas Rice, the pilot who testified for Applicant, on the other hand, describes himself as an "accomplished F/A-18 fighter pilot"[18] and has almost 1800 hours of total time piloting an aircraft.[19] Mr. Rice testified that "experience always plays a role."[20] Based on this information, it is plausible for the Commission to conclude that Mr. Homan could be more affected by turbulence than Mr. Rice. If the Commission considers establishing setbacks from

[17] Exhibit G1, P. 1
[18] Exhibit A43
[19] Direct examination of Thomas Rice
[20] See cross-examination of Thomas Rice by Kristen Edwards

Homan Field for safe aviation, Staff did not obtain or subpoena an independent expert on this matter and believes the evidentiary record is sufficient for the Commission to formulate setbacks.

i. Commissioner Hanson's request for information regarding the private airstrip near the Crocker Wind Farm

During the direct examination of Mr. Thurber, Commissioner Hanson asked a number of questions regarding how a private airstrip was addressed near the Crocker Wind Farm in a past docket before the Commission. In Docket EL17-055, the evidentiary record associated with Sheldon Stevens' private airstrip was limited because Crocker Wind Farm, LLC (Crocker) voluntarily eliminated two turbine locations near his airstrip before the docket was filed with the Commission. As a result, there were few details shared about the private airstrip and why Crocker voluntarily eliminated turbines. Commission Staff will attempt to address Commissioner Hanson's questions with the information from the evidentiary record in Docket EL17-055:

(1) How far were the turbines from the private airstrip that were removed?

Mr. Stevens' Description (Exhibit I-54)

In direct testimony, Mr. Stevens' stated that two turbines approximately one mile from the west end of the airport runway were eliminated or shifted. Mr. Stevens' also expressed concern about wake turbulence created by multiple turbines that would be potentially sited northwest of the airport, and it does not appear that Crocker eliminated or shifted these turbines.

Crocker's Description (Exhibit A1)

On Page 124 of the Application, Crocker summarizes its actions associated with Mr. Stevens' airstrip: "One private airstrip is located outside of the Project boundary in Township 118N, Range 58W, Section 18…… Crocker voluntarily eliminated a turbine

location in the southeast quarter of Township 118N, Range 59W, Section 13 and shifted another turbine in the southwest quarter of the same section (which has subsequently been removed) following discussions with the private airstrip owner."

(2) The size of the Stevens' air field?

The constraint map provided by Crocker (Exhibit A15-7, Page 1 of 5) provides a high level overview of the private airstrip in relation to the project. Based on the map, Commission Staff estimates Stevens' airstrip to be 2,050 ft. x 120 ft. Commission Staff could not find the size of the airstrip in the evidentiary record.

(3) Was the air strip operational?

Commission Staff could not find this information in Crocker's evidentiary record.

Conclusion

Each issue must be weighed using the preponderance of evidence standard. Is it more likely than not that Applicant has satisfied each requirement of SDCL 49-41B-22?

SDCL 49-41B-25 authorizes the Commission to grant the permit, deny, or grant upon conditions. To Staff's knowledge, no permit has ever been granted without conditions. Absent conditions, this project may pose a serious threat to the health, safety, and welfare of the environment and inhabitants in the area.

Staff notes that if the Commission finds insufficient information was available on a specific topic, the Commission could deny and allow Applicant to reapply pursuant to SDCL 49-41B-22.1. Under this statute, Applicant could reapply and need only establish those criteria upon which the permit was denied.

Staff recommends the permit be granted subject to the conditions proposed by Applicant and Staff at the hearing, as updated in Attachment 2 to this brief, and those findings recommended by Staff in this brief.

Respectfully submitted this 7th day of May 2019.

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