

BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

DOCKET EL18-053

**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**

**PUBLIC REBUTTAL TESTIMONY OF JON THURBER
ON BEHALF OF THE COMMISSION STAFF
APRIL 1, 2019**

TABLE OF CONTENTS

I.	<u>INTRODUCTION</u>	1
II.	<u>RESPONSE TO THE TESTIMONY OF GARRETT HOMAN</u>	2
III.	<u>RESPONSE TO THE TESTIMONY OF JOHN HOMAN</u>	5
IV.	<u>RESPONSE TO THE TESTIMONY OF CHRISTINA KILBY</u>	6
V.	<u>RESPONSE TO THE TESTIMONY OF DEAN PAWLOWSKI</u>	7

EXHIBITS

Exhibit_JT-7 South Dakota Department of Transportation Office of Aeronautics Letter

Exhibit_JT-8 Commission Staff Request to South Dakota Department of Environment and
Natural Resource for Comment

Exhibit_JT-9 South Dakota Department of Environment and Natural Resource Response Letter

1 I. INTRODUCTION AND QUALIFICATIONS

2
3 **Q. Please state your name and business address.**

4 A. Jon Thurber, Public Utilities Commission, State Capitol Building, 500 East Capitol
5 Avenue, Pierre, South Dakota, 57501.
6

7 **Q. By whom are you employed and in what capacity?**

8 A. I am a utility analyst for the South Dakota Public Utilities Commission (“Commission”). I
9 am responsible for analyzing and presenting recommendations on utility dockets filed
10 with the Commission.
11

12 **Q. Did you provide direct testimony in this docket on March 13, 2019?**

13 A. Yes.
14

15 **Q. What is the purpose of your rebuttal testimony?**

16 A. The purpose of my rebuttal testimony is to respond to the testimony of Garrett Homan,
17 John Homan, Christina Kilby, and Dean Pawlowski.
18

19 II. RESPONSE TO THE TESTIMONY OF GARRETT HOMAN

20
21 **Q. In his testimony, Garrett Homan discusses concerns regarding the proposed
22 placement of turbines near a private airstrip, Homan Field, and compliance with
23 SDCL Title 50. Is the Commission the state agency responsible for interpreting
24 SDCL Title 50?**

25 A. No, SDCL Title 50 provides statutory authority for aviation, and the South Dakota
26 Department of Transportation (“DOT”) is the state agency responsible for aviation.
27 However, SDCL 49-41B-22(1) requires that the Commission determine whether the
28 facility will comply with all applicable laws and rules.
29

30 **Q. Did Commission Staff request the opinion of the DOT on Garrett Homan’s
31 arguments regarding the proposed Deuel Harvest Wind Farm and compliance with
32 SDCL Title 50?**

33 A. Yes. Please see the DOT’s opinion on Exhibit_JT-7.

1 **Q. Please provide the DOT’s position on Garret Homan’s argument regarding**
2 **compliance with SDCL Title 50.**

3 A. On Page 3 of Exhibit_JT-7, the DOT provided the following position:

4
5 “With regard to private airports, Title 50 provides the Department with limited
6 enforcement authority. The Department *may* have the authority to abate a
7 private airport hazard found to be a public nuisance as SDCL 50-2-5 provides
8 one of the duties of the Transportation Commission, and also the
9 Department, is to “supervise the aeronautical activities and facilities within the
10 state, including supervision and control over all airports and aviation
11 facilities.” *SDCL 50-2-5*

12
13 As previously noted, the Legislature has expressly granted the authority to
14 abate private airport hazards to “political subdivisions” in SDCL 50-10-2.1.
15 SDCL 50-10-5 further provides “[e]ach municipality, county, or other political
16 subdivision that has an airport layout plan, shall take measures for the
17 protection of airport approaches, and shall adopt, administer, and enforce,
18 under the police power and in the manner and upon the conditions prescribed
19 by this chapter, airport zoning regulations applicable to the area.” *SDCL 50-*
20 *10-5*. This statute, and the general intent of SDCL Ch. 50-10, shifts zoning
21 enforcement, and therefore airport hazard enforcement which isn’t definitively
22 granted to the Department through Title 50, to the respective political
23 subdivision. In this instance, it is the Department’s belief Deuel County would
24 be the political subdivision required to address any airport hazards or zoning
25 violations which affect a private airport or which are not violations of the
26 permit process in SDCL Ch. 50-9.”

27
28 **Q. Did the DOT note any other concerns regarding the Deuel Harvest Wind Farm?**

29 A. On Page 4 of Exhibit_JT-7, the DOT stated “there is a public airport which may affect the
30 installation of at least one wind turbine related to the referenced application. The Clear
31 Lake Airport is a public airport located within Deuel County which has been permitted by
32 the Department. In reviewing the proposed turbine locations, Department staff has
33 preliminarily determined one turbine (referenced as #90) may require an aeronautical

1 hazard permit pursuant to SDCL 50-9-1, et al. Turbine #90 is approximately 23,300 feet
2 from the Clear Lake Airport. The spacing would give the relative positions about a 48 to
3 1 approach surface ratio and SDCL 50-9-1 states any positioning within that distance to
4 the airport which exceeds 50 to 1 surface ratio requires a permit be granted by the
5 Department.”

6
7 Commission Staff requests Deuel Harvest address this issue at the evidentiary hearing.

8
9 **Q. On Pages 9 through 11 of his testimony, Garret Homan asserts that the Project**
10 **“does not provide an adequate level of safety to the public or neighbors from ice**
11 **throw.” Please summarize his position.**

12 A. Garret Homan asserts that “the project as proposed does not comply with 49-41B-22 (3)
13 since the minimum setbacks used for siting do not meet the wind turbine manufacturer’s
14 (GE) recommendations for the required safety distances surrounding turbines in freezing
15 weather to mitigate hazards associated with ice throw.”

16
17 To support his claim, Mr. Homan references sections in a safety manual for GE turbines
18 that was filed as an exhibit in the Seneca Wind Farm Application before the Ohio Power
19 Siting Board. Specifically, Mr. Homan references Page 45 of the Safety Manual, citing
20 the following:

21
22 “it is advisable to cordon off an area around the wind turbine generator system
23 with the radius R* during freezing weather conditions, in order to ensure that
24 individuals are not endangered by pieces of ice thrown off during operation. *R =
25 1.5 x (hub height [m] + rotor diameter [m]) (Recommendation of the German
26 Wind Energy Institute DEWI 11/1999).”

27
28 **Q. Did Commission Staff request the safety manual for the proposed turbines from**
29 **the Applicant?**

30 A. Yes. In response to Commission Staff data request 3-6, the Applicant provided a safety
31 manual for both proposed turbines with following condition: “These documents are being
32 provided confidentially and subject to an agreement with General Electric that they will
33 be provided on an "Attorneys' Eyes Only" basis.” Commission Staff counsel received
34 permission for Commission Staff analysts to review the safety manual.

1 As a result of the confidentiality request, the remainder of my ice throw testimony will be
2 treated as confidential.

3

4 **Q. Based on your review of the safety manual, can you provide any additional**
5 **context regarding the “area to cordon off” referenced by Garrett Homan?**

6 **[BEGIN CONFIDENTIAL]**

7 ■ [REDACTED]

8 [REDACTED]

9 [REDACTED]

10

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 **[END CONFIDENTIAL]**

16

17 **Q. Do the turbines proposed by the Applicant have an ice detector?**

18 A. Yes, it is my understanding that the proposed turbines have an ice detector.

19

20 **Q. Does General Electric make any other statements regarding an ice sensor or**
21 **detector in the safety manual?**

22 **[BEGIN CONFIDENTIAL]**

23 A. [REDACTED]

24 [REDACTED]

25

26 [REDACTED]

27 [REDACTED]

28 [REDACTED]

29

30 [REDACTED]

31 [REDACTED]

32 [REDACTED]

33 [REDACTED]

34 [REDACTED]

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[REDACTED]

[END CONFIDENTIAL]

III. RESPONSE TO THE TESTIMONY OF JOHN HOMAN

Q. In his testimony, John Homan indicated a concern for the impact that the Deuel Harvest Wind Farm construction and operation may have on aquifers and springs in and near the project area. Did Mr. Homan provide any studies or documentation to support his concerns?

A. No, John Homan did not provide any studies or documentation in response to Commission Staff data request 2-2, 2-6, and 2-7 to support his concerns. In response to Commission Staff data requests 2-6 and 2-7, John Homan requested that a state agency provide an assessment before granting a permit, and specifically mentioned the Department of Environment and Natural Resources (“DENR”).

Q. Did any other Intervenors indicate concerns regarding potential hydrological and geological impacts from the construction and operation of the Deuel Harvest Wind Farm in their testimony?

A. Yes. Garrett Homan indicated concern regarding pollution due to oils and fluids leaking from the turbines during operation. Also, Christina Kilby stated concern regarding pollution to the aquifers due to ground vibrations during wind turbine operation.

Q. Did Commission Staff request the DENR provide comment on the hydrology and geology concerns identified in this proceeding?

A. Commission Staff sent a letter to DENR that summarized hydrological and geological concerns identified in pre-filed testimony and requested comment on each concern. See Exhibit_JT-8 for the information request to DENR.

1 **Q. Did the South Dakota DENR reply to Commission Staff's information request?**

2 A. Yes. Please see Exhibit_JT-9 for the DENR response to Commission Staff's information
3 request. The DENR did not indicate any threat of serious injury to the environment
4 associated with the concerns raised by the Intervenors.
5

6 **IV. RESPONSE TO THE TESTIMONY OF CHRISTINA KILBY**
7

8 **Q. In her testimony, Ms. Kilby challenges Deuel Harvest's interpretation of the**
9 **setback associated with Lake Alice in the Deuel County Ordinance. Do you have**
10 **any comments regarding the interpretation of the Lake Alice setback?**

11 A. As stated in my direct testimony, Commission Staff has analyzed the Application using
12 the interpretation that the 2-mile setback is from the Lake Park District at Lake Alice.
13 Ms. Kilby argues that the Deuel County Ordinance should be interpreted based on the
14 plain language in the ordinance and the setback is from Lake Alice, not its lake park
15 district. Commission Staff agrees with Ms. Kilby that the interpretation of an ordinance
16 presents a question of law and will brief this issue.
17

18 **Q. How would Commission Staff's review of the Application be impacted If a court of**
19 **competent jurisdiction agrees with Ms. Kilby's interpretation of the Lake Alice**
20 **setback?**

21 A. The number of turbines that would be shifted or removed from the proposed layout to
22 comply with a 2-mile setback from Lake Alice would constitute a material change to the
23 Application and require approval from the Commission. Commission Staff recommends
24 adopting the following condition to address this potential scenario:
25

26 The Applicant must obtain a Deuel County Special Exception Permit and comply with
27 the Deuel County Zoning Ordinance. If a court of competent jurisdiction determines
28 the Deuel County Ordinance requires a 2-mile setback from Lake Alice, not its lake
29 park district, the permit shall be suspended until the Applicant receives Commission
30 approval of all turbine location changes. However, if Applicant chooses to remove all
31 impacted turbines from the project layout, rather than relocate the turbines, then the
32 permit shall remain in effect and no Commission approval is necessary.
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36

1 V. **RESPONSE TO THE TESTIMONY OF DEAN PAWLOWSKI**

2
3 **Q. In his testimony, Mr. Pawlowski states that Otter Tail will construct, operate and**
4 **maintain the transmission facilities that Otter Tail will own, notably the**
5 **Interconnection Switching Station. How is Otter Tail’s position different than what**
6 **Deuel Harvest communicated in its Application?**

7 A. Deuel Harvest describes the proposed Interconnection Substation in Section 8.6 of the
8 Application. On Page 8-8 of the Application, Deuel Harvest states “the Interconnection
9 Substation will be constructed by the Applicant or Otter Tail Power Company and will be
10 owned and operated by Otter Tail Power Company.” *(emphasis added)* In addition,
11 Deuel Harvest “requests that the Permit allow the Interconnection Substation to be
12 modified as needed, so long as the new location is on land leased for the Project.”

13
14 Otter Tail appears to want to clarify that Otter Tail will be constructing the
15 Interconnection Substation, not the Applicant. The fact that Otter Tail will own and
16 operate the transmission facilities was stated in the application.

17
18 **Q. Since Otter Tail is constructing, owning, and operating the Interconnection**
19 **Substation, is it necessary to include that facility in the requested permit?**

20 A. No. Commission Staff believes the Interconnection Substation was included in the
21 Application because Deuel Harvest was unsure if it would be responsible for
22 constructing the facility. Without the need to construct, the Interconnection Substation
23 does not need to be included in the request as an associated facility.

24
25 **Q. On Page 14 of his testimony, Mr. Pawloski requested that the permit either be**
26 **separated/bifurcated or, at a minimum, that Otter Tail be given the opportunity to**
27 **be heard regarding any conditions imposed on the facility permit as to the 345-kV**
28 **Interconnection Switching Station. Did Commission Staff reach out to Otter Tail**
29 **to see if there was an alternative solution, such as a permit condition, to resolve**
30 **their concerns?**

31 A. Yes. Instead of a permit condition, Otter Tail prefers to have a stipulation of facts to be
32 included in the findings of fact and conclusions of law, in the event a permit is granted by
33 the Commission. Commission Staff will continue to work with Otter Tail and Deuel
34 Harvest to address Otter Tail’s concerns.

1 **Q. Does this conclude your rebuttal testimony?**

2 A. Yes, this concludes my written rebuttal testimony. However, I will supplement my written
3 testimony with oral testimony at the hearing to respond to Deuel Harvest testimony,
4 Intervenor testimony, and responses to discovery.

5