

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE
APPLICATION BY NORTH BEND
WIND PROJECT, LLC FOR A PERMIT
TO CONSTRUCT AND OPERATE THE
NORTH BEND WIND PROJECT IN
HYDE COUNTY AND HUGHES
COUNTY, SOUTH DAKOTA**

EL21-018

**TESTIMONY OF
MARTIN PIORKOWSKI**

**ON BEHALF OF
NORTH BEND WIND PROJECT, LLC**

September 26, 2022

1 **Q. Please state your name and address for the record.**

2
3 **A.** Martin Piorkowski

4
5 **Q. Have you given prior testimony in this matter?**

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7 **A.** Yes I have.

8
9 **Q. Have you reviewed the testimony of staff witnesses and intervenor witnesses?**

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11 **A.** Yes I have.

12
13 **Q. Do you have comments on that testimony to share?**

14
15 **A.** Yes.

16
17 **Q. Has previous testimony on the topic of prairie grouse and pheasant behavior in**
18 **response to wind turbines been provided?**

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20 **A.** Yes. Additional testimony had been provided by North Bend Wind, LLC in response to
21 prairie grouse and pheasants during the Hughes County Use Permit hearing (Exhibit A),
22 and I concur with that testimony.

23
24 **Q. What are the potential impacts to pheasants, sharp-tailed grouse, and greater**
25 **prairie chickens from the presence of wind turbines?**

26
27 **A.** Although no studies have directly measured potential impacts to sharp-tailed grouse from
28 renewable energy development, there is an increasing body of literature that has
29 evaluated the response of other prairie grouse to wind energy infrastructure. In Wyoming,
30 research reported lower greater sage-grouse (GRSG; *Centrocercus urophasianus*) nest and
31 brood survival in habitats closer to wind turbines two years following development.
32 However, over a 6-year period after development, research failed to detect negative
33 effects on GRSG nest, brood, or summer female survival, suggesting that variability in
34 survival was better explained by temporal variability than wind energy infrastructure. In
35 Idaho, Columbian sharp-tailed grouse (CSTG; *T. phasianellus columbianus*) nest survival
36 was not influenced by proximity to turbines, but chick survival was negatively associated
37 with turbine density within 1.3 miles. Greater prairie-chicken (GRPC; *T. cupido*) nest and
38 female survival was also reportedly not influenced by proximity to wind turbines in
39 Nebraska or Kansas. In general, studies have failed to detect demographic impacts
40 on prairie grouse associated with wind energy development; however there is some
41 variability between different prairie grouse species.

42
43 For pheasants, South Dakota Game Fish and Parks (SDGFP) require all private hunting
44 preserves to release a minimum of 600 rooster pheasants each season. Based on SDGFP

1 harvest data (2020-2021), 91% of all pheasants harvested on private shooting preserves
2 state-wide were released birds. Furthermore, recent literature indicates wind turbines
3 have no significant adverse effects on grouse and pheasant behavior. An Iowa-based
4 study, focused on ring-necked pheasants, found that pheasants were “virtually
5 unaffected” by wind turbines (Duprie 2018). This was also referenced in testimony by
6 Jon Thurber provided on February 7, 2022 on behalf of the Commission Staff.
7

8 **Q. What avoidance or minimization measures have been considered at North Bend**
9 **Wind Project for prairie grouse species?**

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11 **A.** Specific to M. Bollweg’s testimony to the PUC (02/04/2022), there are numerous
12 references to a 5-mile buffer. This was derived from a US Fish and Wildlife Service
13 “white paper” dated in 2004 that recommended this buffer. It also stated that much is
14 unknown about prairie grouse response to wind turbines and provided justification based
15 largely on research pertaining to response from sage-grouse and lesser prairie-chickens.
16 Neither of these species have the potential to occur within the North Bend project area.
17

18 SDGFP does provide guidance on avoidance measures from prairie grouse leks.
19 However, the most recent guidance from SDGFP (2022 Draft currently available)
20 indicates that the presence and quality of habitat is also important. The current draft
21 prairie grouse conservation strategy for the state includes recent habitat modeling efforts
22 completed for North and South Dakota for both sharp-tailed grouse and greater prairie
23 chickens. In general, these models suggest limited occupancy of sharp-tailed grouse and
24 low occupancy of greater prairie-chickens within and near the project area. Results of
25 field surveys conducted across the project area since 2016 identified only greater prairie-
26 chicken leks.
27

28 Since 2016, North Bend has been using collected field data and information on the effects
29 of wind energy development on prairie grouse populations (LeBeau et al. 2020, Lloyd et
30 al. 2022) to develop infrastructure layouts that avoided or minimized disturbance to
31 grasslands. This has been achieved by placing infrastructure (including wind turbines)
32 within areas that are not suitable for grouse, to the extent possible, for example crop
33 fields, as recommended by SDGFP.
34

35 **Q. Are there continued efforts to minimize potential impacts to wildlife species to this**
36 **project or other after the project is constructed?**

37
38 **A.** North Bend is continuing to work with state and federal agencies (SDGFP, US Fish and
39 Wildlife Service [USFWS], and Western Area Power Administration) to take appropriate
40 measures to avoid, reduce, and minimize potential impacts to wildlife within the
41 proposed project area. To this end, North Bend and SDGFP have partnered on a research
42 project to collect much needed information on breeding grassland birds to help develop
43 future conservation actions in the form of siting recommendations and decisions. This
44 support letter from SDGFP was provided to USFWS and the SD PUC on July 16, 2021.

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Dated this 26th day of September, 2022.



Martin Piorkowski