

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DAKOTA RANGE I, LLC AND DAKOTA
RANGE II, LLC FOR AN ENERGY FACILITY PERMIT TO CONSTRUCT
A WIND ENERGY FACILITY

SD PUC DOCKET EL-18-003

PREFILED REBUTTAL TESTIMONY OF BRENNA GUNDERSON
ON BEHALF OF DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC

May 21, 2018

1 **I. INTRODUCTION**

2

3 **Q. Please state your name and place of employment.**

4 A. My name is Brenna Gunderson. I am the Director of Project Development for Apex
5 Clean Energy, Inc.

6

7 **Q. Please describe your background and qualifications.**

8 A. I have been a wind energy developer for eleven years, six of which I have worked for
9 Apex Clean Energy. I am currently the Director of Project Development. Prior to
10 working for Apex Clean Energy I was a Project Manager of wind development with
11 EDP Renewables. I have a Master of Arts degree in Counseling and Psychological
12 Services from St. Mary's University, Minneapolis, MN. A copy of my statement of
13 qualifications is included as **Exhibit 1**.

14

15 **Q. Did you provide Direct Testimony in this Docket on January 24, 2018?**

16 A. No.

17

18 **Q. What is the purpose of your Rebuttal Testimony?**

19 A. The purpose of my Rebuttal Testimony is to respond to certain portions of the
20 testimony of Jon Thurber, submitted on behalf of the South Dakota Public Utilities
21 Commission Staff ("Staff").

22

23 **Q. Are there any exhibits attached to your Rebuttal Testimony?**

24 A. The following exhibits are attached to my Rebuttal Testimony:

- 25 • **Exhibit 1**: Statement of Qualifications.
- 26 • **Exhibit 2**: Turbine Flexibility Proposal

27

28 **II. RESPONSE TO TESTIMONY OF JON THURBER**

29

30 **Q. Mr. Thurber discusses the Applicant's request for turbine flexibility. What is**
31 **Dakota Range requesting?**

1 A. Dakota Range is requesting that the permit allow turbines to be shifted within 500
2 feet of their current proposed location, so long as specified noise and shadow flicker
3 thresholds are not exceeded, cultural resource impacts are avoided or minimized per
4 the Cultural Resources Monitoring and Management Plan, environmental setbacks
5 are adhered to as agreed upon with the U.S. Fish and Wildlife Service (“FWS”) and
6 South Dakota Game, Fish and Parks (“GFP”), and wetland impacts are avoided to
7 the extent practicable. If turbine shifts are greater than 500 feet, exceed the noted
8 thresholds, or do not meet the other limitations specified, Dakota Range would either
9 use an alternate turbine location or obtain Commission approval of the proposed
10 turbine shift.

11
12 **Q. Mr. Thurber references Staff Data Request 7-5 and notes that the Applicant**
13 **responded that this information is not readily available. What was requested**
14 **in Staff Data Request 7-5?**

15 A. Staff Data Request 7-5 asked the Applicant to: “
16 • “[P]rovide a list of all wind generation projects completed by Apex Clean
17 Energy Holding, LLC, or an associated subsidiary, where turbines were
18 moved during the final micrositing process.”
19 • “[P]rovide how many turbines were moved, how many feet each turbine was
20 shifted, and the reason for each shift.”
21 • “[P]rovide a list of all wind generation projects completed by Apex Clean
22 Energy Holding, LLC, or an associated subsidiary, where no turbines were
23 shifted during the final micrositing process.”

24
25 **Q. Why did Dakota Range respond that the information sought by Staff in Data**
26 **Request 7-5 is not readily available?**

27 A. Dakota Range responded that the information sought in Data Request 7-5 was not
28 readily available because the request was quite broad and sought detailed and
29 specific information related to multiple projects involving a large number of wind
30 turbines. Apex Clean Energy Holdings, LLC (“Apex”) and its subsidiaries have been
31 involved in the development and construction of more than 2,200 MW of wind

1 energy in the last nine years. Because it is not uncommon for turbine shifts to occur
2 during final micro-siting, for the reasons I will discuss in more detail below and as
3 identified in the Application, it simply was not possible to identify each and every
4 turbine shift, and the reasons for that shift, in response to the data request.
5

6 **Q. Why is Dakota Range requesting the flexibility to shift turbines 500 feet?**

7 A. As discussed in Section 9.1 of the Application, “[a]s a result of final micro-siting,
8 minor shifts in the turbine locations may be necessary to avoid newly identified
9 cultural resources (cultural resource studies in coordination with the SWO are
10 ongoing), or due to geotechnical evaluations of the wind turbine locations, landowner
11 input, or other factors.” I will discuss each of these factors in more detail below:

- 12 • Tribal Resources: Dakota Range completed tribal resource surveys with
13 Sisseton Wahpeton Oyate (“SWO”) tribe in May 2018. As a result of those
14 surveys, and input from the tribe, Dakota Range has identified certain wind
15 facilities it wants to shift in order to avoid areas of cultural significance to the
16 tribes. There are five turbines Dakota Range would need to shift between
17 100 and 500 feet to address SWO’s concerns.
- 18 • Geotechnical Evaluations: Geotechnical soil borings will be completed at
19 each turbine location prior to the start of construction and are used to design
20 each turbine’s foundation. Should the geotechnical evaluation indicate soil
21 composition at currently proposed locations is not adequate to support a
22 turbine’s foundation design, an engineer will first attempt to shift the turbine’s
23 location to an area with better soil before redesigning the foundation. The
24 requested flexibility will better enable Dakota Range to utilize the geotechnical
25 data in turbine placement and foundation design.
- 26 • Landowner Input: It is common for a landowner to put more thought into the
27 location of the turbine over time. This is particularly true as construction
28 activities get closer or even commence. We do our best to address the
29 concerns of our landowners and try to accommodate their reasonable
30 requests, and having the ability to shift a turbine without further approval will
31 better enable us to do so.

- 1 • Other Factors: There may be unknown obstacles underground that are not
2 discovered until excavation activities begin. Should an obstacle such, as a
3 boulder or a previously unidentified cultural resource, be discovered during
4 construction, shifting the turbine may allow the obstacle to be avoided without
5 delaying construction activities. Additionally, if a new microwave tower was
6 installed prior to commencement of construction, and a turbine location
7 obstructed the tower’s beam path, shifting the turbine may resolve the issue.

8
9 **Q. On pages 7-8 of his testimony, Mr. Thurber sets forth a process for handling**
10 **turbine shifts that occur. Do you have comments on this proposed process?**

11 A. Yes. Rather than the process Mr. Thurber has outlined, Dakota Range proposes the
12 turbine flexibility discussed above, along with a review/approval process for “material
13 changes,” i.e., those turbine adjustments that do not meet the turbine flexibility
14 limitations outlined above. The requested turbine flexibility, and the material change
15 review/approval process, are outlined on the attached **Exhibit 2**.

16
17 Dakota Range’s proposal would allow the flexibility to shift turbines within 500 feet of
18 the currently proposed locations without further approval, subject to the limitations
19 outlined in Exhibit 3. Dakota Range would file an affidavit demonstrating compliance
20 with the applicable requirements prior to implementing the shift.

21
22 For those adjustments that exceed 500 feet or do not otherwise comply with the
23 specified limitations, Dakota Range proposes submitting a filing containing the
24 information outlined in Exhibit 3, and providing Staff with ten calendar days within
25 which to determine if the proposed adjustment should be referred to the Commission
26 for further review. If further review is not requested, Dakota Range could proceed
27 with the turbine adjustment. If further review is requested, the Commission would
28 make a determination on the adjustment at its next regularly scheduled meeting after
29 the Staff’s referral is made.

1 During construction, keeping schedules is crucial not only to meeting the commercial
2 operation date, but also to managing contracts with contractors and subcontractors.
3 Dakota Range believes its proposal will ensure compliance with all applicable
4 setbacks, commitments, and requirements, while also enabling the Project to remain
5 on-schedule and on-budget.

6
7 **Q. Have you reviewed the requests for location deviations referenced by Mr.**
8 **Thurber on page 8 of his testimony?**

9 A. Yes. It is important to note that in past wind project dockets, the project developers
10 had substantial micrositing flexibility, as they did not have to identify final turbine
11 locations until 30 days prior to construction. In this case, Dakota Range is only
12 asking for 500 feet of turbine flexibility, limited by the commitments set forth above.
13 Therefore, when compared to past wind project dockets, the requested turbine siting
14 flexibility is minimal.

15
16 **III. CONCLUSION**

17
18 **Q. Does this conclude your Rebuttal Testimony?**

19 A. Yes.
20

1 Dated this 21st day of May, 2018.

2

A handwritten signature in cursive script, appearing to read "Brenna Gunderson". The signature is written in black ink on a white background.

3

4

5 Brenna Gunderson

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