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 DANIEL PARDO
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, employer, and business address.**

4   A.   My name is Daniel Pardo, and I work for DNV GL, with a business address of 333

5   SW 5th Ave, Suite 400, Portland, Oregon 97204. I work at our office location with an

6   address of 4100 rue Molson, suite 100, Montreal, H1Y 3N1, Canada.

7

8   **Q. Please describe your education and professional experience.**

9   A.   I have a Master of Science in Wind Energy from Danmarks Tekniske Universitet and

10   a Bachelors of Engineering in Mechanical Engineering from the Universidad de Los

11   Andes. I have 13 years of practical experience in renewables. In my current

12   position, I provide technical advice on renewable energy projects to developers in

13   topics such as feasibility studies, technology selection, and decommissioning

14   assessments. A copy of my statement of qualifications is attached as **Exhibit 1**.

15

16 **Q. Please describe your familiarity with the Dakota Range Wind Project**

17 **("Project").**

18 A.   DNV GL prepared the Decommissioning Cost Analysis provided as Appendix P to

19   the Application.

20

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

22 A.   No.

23

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

25 A.   The purpose of my Rebuttal Testimony is to respond to statements made in the

26   Direct Testimony of Intervenor Kristi Mogen regarding decommissioning costs.

27

28 **Q. What exhibits are attached to your Rebuttal Testimony?**

29 A.   The following exhibit is attached to my Rebuttal Testimony:

30   •   **Exhibit 1**: Statement of Qualifications

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1   II. **RESPONSE TO TESTIMONY OF KRISTI MOGEN**

2

3   **Q. Ms. Mogen indicates concerns regarding the per turbine decommissioning**
4   **cost estimate for the Project. Could you provide DNV GL's per turbine**
5   **decommissioning cost estimate identified in the Decommissioning Cost**
6   **Analysis submitted as Appendix P to the Application, and explain the basis for**
7   **that estimate?**

8   A. Yes. DNV GL's decommissioning cost analysis for the Project includes the
9   disassembly, removal, and disposal of wind turbines and other associated project
10   infrastructure. The results are presented for two scenarios: one where partial resale
11   of turbine major components happens and another scenario where it does not. For
12   the partial resale scenario, DNV GL estimates the Project can have a positive
13   income of $27,620 per turbine. For the scenario without partial resale, the
14   decommissioning cost is estimated to be $38,900 per turbine.

15

16 **Q. Could you explain the role of partial resale and salvage value in your per**
17   **turbine decommissioning cost estimate for the Project?**

18 A. Yes. The study assumes that some of the major components can be sold after they
19   have been decommissioned. The resale value of these components constitutes
20   potential income that would offset the costs of decommissioning. The study also
21   assumes that some material can be sold as scrap and, thus, the salvage value
22   would also offset a portion of the decommissioning costs.

23

24 **Q. For what point in time is the cost estimate calculated? In other words, when is**
25   **it assumed that the decommissioning costs for the Project would be incurred**
26   **relative to when the Project becomes operational?**

27   For the analysis, decommissioning is anticipated to start soon after the end of the
28   Project's operating life (assumed to be 30 years for purposes of this study).
29   However, the costs are calculated in 2017 dollars.

30

1   Q. **In her testimony, Ms. Mogen references decommissioning costs of $200,000**
2   **per turbine, and asserts that DNV GL's decommissioning cost analysis**
3   **conducted for the Project underestimates the Project's anticipated per turbine**
4   **decommissioning costs. Do you agree?**
5   A. No. It is unclear what methodology Ms. Mogen used to come to her conclusion that
6   decommissioning costs will be $200,000 per turbine. The DNV GL decommissioning
7   cost analysis thoroughly explains the methodology for its decommissioning cost
8   conclusions. Additionally, the results presented in DNV GL's cost analysis study
9   use conservative assumptions. Some of these assumptions are: all access roads
10   will be decommissioned, use of a conservative distance from the Project to
11   recycling/salvage facilities, and a width of 16 feet for all access roads. For the
12   partial resale scenario, conservative assumptions have also been made. These
13   assumptions include: only major components that are five years or younger can be
14   sold, and medium-grade materials, such as small motors and medium-gauge
15   cabling, would not be resold. Thus, DNV GL's analysis provides a conservative
16   decommissioning cost estimate based on a specified and appropriate methodology.
17

18   **III. CONCLUSION**

19

20   Q. **Does this conclude your Rebuttal Testimony?**

21   A. Yes.

22

1   Dated this 21st day of May, 2018.

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4   _____

5   Daniel Pardo

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