

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

**IN THE MATTER OF THE APPLICATION OF
CROWNED RIDGE WIND II, LLC FOR A FACILITIES PERMIT TO
CONSTRUCT A 300.6 MEGAWATT WIND FACILITY**

Docket No. EL19-027

REBUTTAL TESTIMONY

OF MARK THOMPSON

January 8, 2019

INTRODUCTION AND QUALIFICATIONS

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Mark Thompson, 700 Universe Blvd., Juno Beach FL 33408.

Q. WHAT IS YOUR JOB AND WHAT ARE YOUR JOB RESPONSIBILITIES?

A. I am the Manager of Wind Engineering within the Engineering & Construction (“E&C”) organization at NextEra Energy Resources, LLC (“NEER”). As the Manager of Wind Engineering, one of my primary roles is to coordinate or provide support for the development of new wind sites that include underground collector systems, substations, and transmission lines.

Q. ARE YOU THE SAME MARK THOMPSON WHO SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING ON JULY 9, 2019 AND SUPPLEMENTAL TESTIMONY ON SEPTEMBER 20, 2019?

A. Yes.

Q. HAS THIS REBUTTAL TESTIMONY BEEN PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my supplemental testimony is to address the testimony of Staff witnesses David Hessler and Darren Kearney.

1 **Q. STAFF WITNESS HESSLER (PAGE 5, LINES 7-11) CLAIMS THAT CRW II**
2 **MAY BE ABLE TO FURTHER OPTIMIZE SOUND THROUGH THE USE OF 6**
3 **ALTERNATIVE TURBINE LOCATIONS (94, 97, 103, 113, 134, AND ALT6). DO**
4 **YOU AGREE?**

5 A. I have reviewed the alternative turbine locations and have no issues with
6 relegating turbines 94, 97, 134, and ALT6 to primary status. However, based on
7 cultural setbacks explained in witness Sappington's rebuttal testimony, turbines
8 103 and 113 would be difficult to construct. Therefore, these turbine locations
9 should not be designated as primaries. Delivery trucks with large turbine
10 components, erection cranes, and other equipment must be able to safely
11 maneuver within the construction easement. Turbine locations 103 and 113 do not
12 facilitate safe construction and erection without possible significant impact to
13 cultural sites.

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15 **Q. ARE THERE OTHER APPROACHES THAT CRW II CAN IMPLEMENT TO**
16 **MITIGATE SOUND OTHER THAN THE MOVEMENT OF TURBINE**
17 **LOCATIONS?**

18 A. Yes. Recently General Electric ("GE") developed an Enhanced Power Curve
19 Operation ("EPCO") mode for operating their 2MW – 116 rotor diameter series of
20 turbines. GE expects the use of this operating mode will reduce the sound level by
21 approximately 1.5dBA when compared to the normal operating mode. CRW II
22 will implement the EPCO software option that produces more torque at a lower

1 rpm and slows down the overall speed of the blades which results in a quieter
2 turbine. This software option does not increase the maximum output of the
3 turbine.

4 **Q. STAFF WITNESS KEARNY (PAGE 18) PROPOSES A CONDITION TO**
5 **ADDRESS ICE THROW FROM TURBINES. DO YOU AGREE WITH THE**
6 **CONDITION?**

7 A. Yes, it is the same condition agreed to in Docket No. EL19-003 (Crowned Ridge Wind I).

8 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

9 A. Yes.

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