

- 5-1) Mr. Martinsen provides testimony stating he has been employed by NEER since 2004 in various capacities. His current role is specified on the unmarked exhibit provided by him as part of his testimony is a 'Wind General Manager.' Please provide the dates of Mr. Martinsen's capacity as a Wind General Manager.

**Response:** May 27, 2023 to the present.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-2) Mr. Martinsen provides testimony stating he has been employed by NEER since 2004 in various capacities. Please provide the dates of Mr. Martinsen's capacity as Regional Wind Site Manager.

**Response:** March 14, 2020 to May 2023. At the end of May 2023, I continued to oversee the Crowned Ridge Wind site as part of my responsibilities, but, also had additional sites added to my responsibilities and was promoted to Wind General Manager, Wind Operations Great Plains.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-3) Please provide the duties Mr. Martinsen provided NEER while Regional Wind Site Manager.

**Response:** The focus for the Regional Wind Site Manager is the safe and reliable operations of each wind facility site in the region which includes site and workforce management, technical services, field execution, and budgeting. During my tenure as a Regional Wind Site Manager, my region included nine wind facilities sites across North Dakota, South Dakota, Minnesota, and Nebraska, including the Crowned Ridge Wind facility.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-4) How many times has Mr. Martinsen physically visited the Crowned Ridge Wind facility and project area?

**Response:** Crowned Ridge Wind, LLC ("Crowned Ridge") objects to Data Request 5-4 as it is not limited in time. Subject to and without waiving this objection, Crowned Ridge responds: I have physically visited the Crowned Ridge facility and project area more than a hundred times.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-5) When specifically did Mr. Martinsen physically visit the Crowned Ridge Wind facility and project area?

**Response:** Crowned Ridge objects to Data Request 5-5 as it is not limited in time. Subject to and without waiving this objection, Crowned Ridge responds: I visited the Crowned Ridge Wind facility and project area during the period of March 2020 to the present. I do not have a record of the exact dates of each visit.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-6) When Mr. Martinsen visited the Crowned Ridge Wind facility and project area, what was his position with the company?

**Response:** I have visited the Crowned Ridge Wind facility as the Regional Wind Site Manager and as the General Manager.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-7) What, if anything, has Mr. Martinsen done to ensure the compliance of the permitted noise level of the project at issue in Codrington County and/or Grant County as part of his position insofar as 'ensuring the safe and reliable operations of NEER's wind fleet'?

**Response:** At Crowned Ridge, I continually drive a culture where we are proactive and responsive to issues. If a resident indicated to Crowned Ridge that a turbine was making more sound than expected, I would have my team investigate and remedy any unusual sound issue. For example, in July of 2020 a landowner notified Crowned Ridge regarding an unusual sound. Crowned Ridge determined the sound was a result of the generator having loose feet, which is how the generator is secured to the floor of the nacelle. The Crowned Ridge technicians performed an alignment of the generator to address the sound from the loose feet.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-8) Regarding Mr. Martinsen's answer on page 3 of his testimony regarding the shutdown of Turbine 71: What was the cause of the turbine fault which caused the turbine to be offline November 12 and 13, 2021?

**Response:** The turbine came offline due to a generator tachometer fault. The generator's tachometer and controller lost communication which caused the turbine fault. The tachometer measures the generator speed in revolutions per minute. Communication was restored and the turbine returned to service.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-9) Was maintenance performed on Turbine 71 on November 12 and/or November 13, 2021? If so, what maintenance was performed to restore the turbine to online status?

**Response:** There was no maintenance performed on Turbine 71 on November 12 and/or November 13, 2021. During this period of time, the fault condition that was explained in response to Data Request 5-6 was addressed.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-10) On page 3, lines 23 and 24 of Mr. Martinsen's testimony, Mr. Martinsen states, 'At no time did Crowned Ridge intentionally shut down a wind turbine with the intent of improving or impacting the results of the 2021 sound study.' Please describe the reason and effect from any and all intentional shut down time periods for any turbine(s) in the Crowned Ridge project area during what was to have been the same Fall 2021 sound study (as compared to the 2020 sound study).

**Response:** I disagree with the premise of the question. There were no intentional shutting down of wind turbines, as the question infers. Wind turbines were curtailed in accordance with the instructions of Epsilon for the periods set forth in the Epsilon 2020 and 2021 sound studies, as well as maintenance was performed on turbine nos. 21, 22, 36, 37, 39, 42, 58, 75 and 78 with Epsilon's approval.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-11) Did Mr. Martinsen oversee and review an identical - in areas covered, conditions and any and all of the same turbine shut downs in the 2020 sound study testing? If so, please list and detail each and every specific action or reaction taking place within the sound study areas.

**Response:** No.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-12) Other than Mr. Martinsen and MISO, who in the NEER Company or Crowned Ridge Wind has the authority or capability to shut down turbine(s)?

**Response:** The Renewable Operations Control Center, the Wind Controls team engineers, the Crowned Ridge site manager and the Crowned Ridge site technicians have the capability to shut down a turbine.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-13) Did anyone other than Mr. Martinsen or MISO manually shut down a turbine during the fall 2021 sound study? If so, who and why was such shut down undertaken?

**Response:** I disagree with the premise of the question. Neither MISO or I manually shut down wind turbines during the fall of 2021 sound study. Site technicians shut down turbines to perform required maintenance. See response to Data Request 3-2, Attachment A.

Stefan J. Martinsen, NextEra Energy Resources, LLC Wind General Manager, Wind Operations – Great Plains.

- 5-14) Mr. Lampeter asserts in his testimony, page 1, lines 26 and 27, that he has provided acoustical consulting on over 80 wind energy projects. Regarding any of those wind projects, was Mr. Lampeter hired by anyone other than the representative wind company or government agency to perform any such sound study(s)?

**Response:** For wind energy projects where I have provided acoustical consulting, Epsilon Associates, Inc. (“Epsilon”) has been hired either directly by the developer or operator of the project, or by another consulting firm where the developer or operator was the client.

Richard Lampeter, Epsilon Associates, Inc., Principal.

- 5-15) Has Mr. Lampeter ever found acoustical non-compliance in a sound study of a wind farm? If so, specifically where and specifically when?

**Response:** Crowned Ridge objects to Data Request 5-15 as it is not limited in time, is not relevant to the complaint proceeding and has no probative value as to the merits of the sound study at issue in the complaint proceeding Subject to and without waiving this objection, Crowned Ridge responds: Yes, on two occasions, as an acoustical consultant, I have found non-compliance in a sound study of a wind farm. The first finding I’m obligated by the customer to hold it confidential, and, therefore, I cannot identify where and when the non-compliance occurred, but I can say the non-compliance was not in the state of South Dakota. The second finding of non-compliance was in Huron County, Michigan during a 2009 sound level measurement program.

Richard Lampeter, Epsilon Associates, Inc., Principal.

- 5-16) On page 4, lines 11-12, Mr. Lampeter states that in the 2020 sound study, equipment was placed 85 feet from the ‘residential structure’ at location 2. If the homeowner did not agree to the protocols of the sound study, why was the alternate location for Location 2 not used?

**Response:** I disagree with the premise of the question, which is the Commission approved protocols to conduct the 2020 sound study required Epsilon to agree with the landowner

on protocols of the sound study. The protocols that controlled conducting the 2020 sound study were the protocols approved by the Commission in its February 19, 2020 Order. Measurement locations initially identified based on Commission's regulatory requirements with respect to a setback may need to be modified slightly in the field due to homeowner requests and/or conditions at the residence which include but are not limited to vegetation, driveways, terrain, and pet access. These adjustments typically will have a minimal impact to the measured sound levels as compared to moving to an alternate location where these same considerations will need to be taken into account potentially resulting in a slightly different measurement location than originally planned there as well.

At location 2, the homeowner requested that the equipment be located on the east side of the home as compared to the west side where it was located during a prior measurement program. Due to terrain and some vegetation the sound level meter was placed at a distance greater than 25 feet from the residence on the east side. In order to stay as consistent as possible with the Commission-approved protocol, maintain consistency with the previous program, and address the homeowner's concerns, the choice was made to measure at a greater distance from the home instead of measuring at an alternate residence. The homeowner did not object to the final location or that it was 85 feet from the residence.

Richard Lampeter, Epsilon Associates, Inc., Principal.

- 5-17) To Mr. Lampeter: Do ANSI guidelines provide any authorization, suggestion or recommendation for a so-called "averaging" of noise at 10-minute intervals to be considered accurate and reliable for precise sound study review and analysis?

**Response:** Sample measurement durations are found in ANSI standards, but I am not aware of a specific duration required for sound level measurements for wind turbines. Although ACP 111-1 (2022) is a wind turbine sound modeling standard, the appendix of the standard discusses sound level metrics and specifically identifies the  $L_{eq}$  and 10-minute averaging times. ANSI S12.18 uses the term "average sound level" and identifies a range of measurement durations with 10 minutes being within that range.

More specifically, Commission Condition 26 defines sound level limits as follows:

The Project, exclusive of all unrelated background noise, shall not generate a sound pressure level (10-minute equivalent continuous sound level,  $L_{eq}$ ) of more than 45 dBA as measured within 25 feet of any non-participating residence unless the owner of the residence has signed a waiver, or more than 50 dBA (10-minute equivalent continuous sound level,  $L_{eq}$ ) within 25 feet of any participating residence unless the owner of the residence has signed a waiver.

The  $L_{eq}$ , also known as the equivalent level, represents the time average of the fluctuating sound pressure and is defined as the metric to be used in the permit condition. In my opinion

use of 10 minute  $L_{eq}$  is the appropriate sound level metric and interval to use in the evaluation.

Richard Lampeter, Epsilon Associates, Inc., Principal.

5-18) To Mr. Lampeter: Is Epsilon equipment insured against damage during a sound study?

**Response:** Crowned Ridge objects to Data Request 5-18 as it seeks information that is not relevant to the complaint proceeding and has no probative value as to the merits of the sound study at issue in the complaint proceeding. Subject to and without waiving these objections, Crowned Ridge responds: Yes, Epsilon sound equipment has insurance coverage of \$20,000 with a deductible of \$1,000 for damage. One sound measurement location would have equipment totaling more than half of the coverage; therefore, damage of the Epsilon's sound equipment at multiple locations would exceed its insurance coverage. Rental equipment is not covered by the policy. Rental equipment was used at measurement locations for the 2020 Crowned Ridge Wind sound level measurement program.

Richard Lampeter, Epsilon Associates, Inc., Principal.

5-19) How many sound studies has Mr. Lampeter provided in his years during the months of January and February? Please provide dates and locations, if any.

**Response:** Crowned Ridge objects to Data Request 5-19 as it is not limited in time, location, and overly burdensome. Subject to and without waiving these objections, Crowned Ridge responds: Epsilon does not keep detailed records on the timing of all of its measurement programs. During my time at Epsilon, I have conducted a variety of sound level measurement programs during January and February. There can be a variety of constraints which dictate the need to measure sound during this period. Wintertime programs have additional challenges in collecting data for the evaluation of a regulatory limit.

Richard Lampeter, Epsilon Associates, Inc., Principal.

5-20) To Mr. Lampeter: On Crowned Ridge Wind's unmarked exhibit, your curriculum vitae, you list 28 renewable energy projects in which you conducted/participated in noise impact assessments. 16 of those projects list NextEra/FPL as your client, (3 sound studies would be attributed to Crowned Ridge Wind, and 1 testimony for Crowned Ridge 2, which would make 20 of 28 assessments for NextEra/FPL), in any of these or other projects you claim to participate in noise assessment,

1) Did any of these projects, other than Crowned Ridge Wind (also known as Crowned Ridge 1), utilize WIOM software during your assessment/study?

- 2) Did any of these projects, other than Crowned Ridge Wind (also known as Crowned Ridge 1), utilize WIOM software after your assessment/study to remedy a noise issue?

**Response:**

1. I am not aware of WIOM being utilized at any of the listed renewable energy projects.
2. I am not aware of WIOM being utilized at any of the listed renewable projects after a post-construction study to remedy a sound issue.

Richard Lampeter, Epsilon Associates, Inc., Principal.

- 5-21) To Mr. Lampeter: Do you agree that personal observations combined with contemporaneous notes are more advantageous and reliable as compared to incomplete and flawed recorded observations in and a part of attempted sound studies?

**Response:** Crowned Ridge objects to Data Request 5-21 as it is vague, calls for speculation, does not identify the type of sound study and does not define what is meant by "incomplete and flawed recorded observations in and a part of attempted sound studies." Subject to and without waiving these objections, Crowned Ridge responds: During the Crowned Ridge Wind 2021 sound study, personal observations and contemporaneous notes conducted by a trained professional sound expert were important components of a sound measurement program, but were not the sole tasks used to determine the quality of the sound evaluation program. Also, during the Crowned Ridge Wind 2021 sound study, notes collected during the measurement program were part of the sound level evaluation for periods close in time to shutdowns meeting the evaluation criteria. Personal observations recorded via handwritten notes during these measurements, notes during a period relatively close in time, and/or a review of the audio recordings allowed for the sound levels to be put into context and identify whether the sound source at that time was the wind turbines or part of the background (vehicle, human activity, wind, etc).

Richard Lampeter, Epsilon Associates, Inc., Principal.

- 5-22) To Mr. Lampeter: Please provide all of your knowledge and interaction with WIOM software and especially provide any data, information, correspondence, research, training, and any communication you and/or your company possess with regard to WIOM software.

**Response:** Epsilon Associates, Inc. has reviewed the GE fact sheet on WIOM.

Richard Lampeter, Epsilon Associates, Inc., Principal.