

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY) Intervenor, Amber Christenson,
CROWNED RIDGE WIND, LLC FOR A) Patrick Lynch, Melissa Lynch,
PERMIT OF A WIND ENERGY FACILITY IN) Kristi Mogen, and Allen Robish
GRANT AND CODINGTON COUNTIES) Motion to Revoke Docket EL19-003

Intervenor, Amber Christenson, Patrick Lynch, Melissa Lynch, Kristi Mogen and Allen Robish Request a Motion to Revoke the Order Granting Permit to Construct a Facility (ORDER) filed on July 26, 2019. SDCL 49-41B-33 "Revocation or suspension of permit--Grounds. A permit may be revoked or suspended by the Public Utilities Commission for: (1) Any misstatement of a material fact in the application or in accompanying statements or studies required of the applicant, if a correct statement would have caused the commission to refuse to grant a permit; or (2) Failure to comply with the terms or conditions of the permit; or (3) Violation of any material provision of this chapter or the rules promulgated there under. The Crowned Ridge Wind LLC (CRW) is in violation of the ORDER, thru misstatements, failure to comply with the terms and violations of material provision of chapter 49-41B.

On January 30, 2019, the South Dakota Public Utilities Commission (Commission) received an Application for a Facility Permit for a wind energy facility (Application) from Crowned Ridge Wind LLC (CRW) to construct a wind energy conversion facility to be located in Grant County and Codington County, South Dakota.

On February 22, 2019, Commission filed an Order Granting Party Status to Amber Christenson, Allen Robish and Kristi Mogen

On March 21, 2019, the Commission filed an Order Granting Party Status to Melissa Lynch

On April 5, 2019, the Commission filed an Order Granting Party Status to Patrick Lynch

On July 26, 2019, the Commission filed the Final Decision and Order Granting Permit to Construct Facility (ORDER) including Procedural History, Findings of Fact, including III No.5 "... (i) **up to 130 GE 2.3 MW wind turbine generators; ...**" and 45 Conditions, including Condition No.2 "**Applicant shall construct, operate, and maintain the Project in a manner consistent** with (1) descriptions in the Application, (2) Application supplements and corrections, (3) commitments

made by Applicant in response to data requests, (4) the Final Decision and Order Granting Permit to Construct Facility, and attached Permit Conditions, (5) all applicable industry standards, (6) all applicable permits issued by a federal, state, or local agency with jurisdiction over the Project, and (7) evidence presented by Applicant at the evidentiary hearing.” [Final Decision and Order Granting Permit to Construct Facility; Notice of Entry with Permit Conditions](#)

On July 29, CRW filed a Construction Compliance filing pursuant to Condition No. 41 of the Order. This filing included a letter concerning specific turbines, and Final Project Area Map, Final Project Maps, Final Sound Study and Final Shadow and Flicker Study. [Crowned Ridge Wind, LLC's Letter regarding Compliance Filing and Notice of Commencement of Construction](#), [Final Project Area Map](#), [Final Project Maps](#), [Final Sound Study](#), [Final Shadow Flicker Study](#)

On August 12, 2019, CRW filed Notice for Start of Construction Letter with the PUC. The Letter stated “Crowned Ridge Wind, LLC (CRW) plans to commence construction ... located in Grant and Codington County, South Dakota no earlier than **August 29, 2019.**” [Crowned Ridge Wind, LLC's Letter regarding Landowner Notification Letter](#), [Landowner Notification Letter and Attachments](#)

On September 12, 2019, CRW filed a letter deferring 100MW of the CRW Wind Facility. [Crowned Ridge Wind, LLC's Letter regarding Transmission Interconnection Status and Deferral of Constructing of 100 MWs of the Wind Facility](#)

On October 3, 2019, CRW requested a 60-day extension for Condition 45. [Crowned Ridge Wind, LLC's Letter regarding Condition No. 45](#)

On December 13, 2019, CRW filed a Request for a limited and Temporary Waiver for LNTE Blades [Crowned Ridge Wind, LLC's Letter regarding Request for Limited and Temporary Waiver with an Affidavit of Jay Haley and Affidavit of Joshua Tran](#), [Request for Limited and Temporary Waiver](#), [Attachment 1 - Sound Modeling Table \(curtailment\)](#), [Attachment 2 - Sound Modeling Table \(with LNTE\)](#), [Affidavit of Jay Haley](#), [Affidavit of Joshua Tran](#)

On January 9, 2019, the Commission filed Order granting CRW Request for a Temporary and Limited Waiver. [Order Approving Temporary Waiver](#)

Shadow Flicker Misstatements, Non-Compliance, Violation Condition No. 2(2) (7), SDCL 49-41B-4 and SDCL 49-41B-33 (1) (2) (3)

On January 26, 2020, Melissa Lynch and Patrick Lynch witnessed and recorded **shadow flicker** in their home lasting approximately ten minutes. (Exhibit 1, 2)

Evidence presented to the Commission during the evidentiary hearing and subsequently states the Lynch residence (receptor CRI-C27-NP) **will receive 0:00 hours per year of shadow flicker**. See the following submitted by the Applicant:

- June 11, 2019 [Exhibit A58 - Final Land Status and Hessler 7 on Intervenor](#)s
- June 12, 2019 [Exhibit A67 - Appendix C-1 Shadow Results Table Rev5](#)
- June 12, 2019 [Exhibit A68 - Appendix C-2 Shadow Results Table Rev5](#)
- July 2, 2019 [Crowned Ridge Wind, LLC's Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law](#)
- July 29, 2019 [Final Shadow Flicker Study](#)
- September 17, 2019 [Exhibit D - Shadow Flicker Threshold After the Relocation of Turbine No. CR1-62](#)
- September 23, 2019 [Exhibit D - Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID](#)
- January 3, 2020 [Attachment 2 - Sound Impact to Intervenor](#)s
- January 3, 2020 [Attachment 5 - Shadow Flicker Study](#)
- January 6, 2020 [Crowned Ridge Wind, LLC's Responses to Staff Data Request 2](#)

Therefore, the project has not been constructed in accordance with the information presented to the Commission, SDCL 49-41B-4, and Condition No. 2 (2) (7). Further, Crowned Ridge has misstated material facts related to the impact of Intervenor. **Lastly, it is reasonable to believe all shadow flicker results presented to the Commission throughout the application and hearing process are unreliable.**

The Commission should find CRW filed and presented false information to the Commission and therefore CRW cannot comply with the conditions of the ORDER and the CRW Facility has not constructed, operated, and maintained in conformity with such permit including any terms, conditions and is in violation of SDCL 49-41B-4 . All turbines constructed in violation of the information presented to the Commission need to be removed, Staff Exhibit S2pdf page 672 #25. If they are not removed, then the Commission should to revoke the CRW permit, as CRW is in violation of Condition No.2, (2) (7) SDCL 49-41B-4, SDCL 49-41B-33 (1) (2) (3). [S2 - Direct Testimony of Darren Kearney with Exhibits](#)

Non 2.3 MW wind turbine wind generators, Misstatements, Non Compliance and Violation Condition No. 2 (1)(2)(3)(4)(6)(7), Condition No. 22 “material change” and Condition No. 41 (a)(b)(c)(d), SDCL 49-41B-4, and SDCL 49-41B-33 (1)(2)(3)

On July 26, 2019, the Commission filed the Final Decision and Order Granting Permit to Construct Facility (ORDER) including Procedural History, Findings of Fact, including III No.5 “... (i) up to 130 GE 2.3 MW wind turbine **generators**; ...”

Over a hundred times throughout the application, process the applicant uses the term “2.3 MW turbine” and used WTG for wind turbine generators. Here is a not-all inclusive list:

- [01/30/19 - Crowned Ridge Wind Farm's Application](#), [A1 - Crowned Ridge Wind Farm's Application](#)
 - Page 17 “130 GE 2.3 MW turbine layout”
 - Page 19 “The Crowned Ridge Wind Farm turbine layout will consist of 130 three bladed, upwind, horizontal-axis wind turbines (Figure 3) which **originate from the GE 2 MW-116 model series**. The proposed Project will utilize 117 **GE 2.3 MW** turbines with 116-meter (381-feet) rotor diameter and 90-meter (295-feet) hub height (Figure 4a) as the Project's primary turbine technology, and 13 **GE 2.3 MW turbines** with 116-meter (381 -feet) rotor diameter and an 80- meter (262-feet) hub height (Figure 4b)”
 - CRW may have stated GE 2MW -116 model series, but CRW went on to clarify using the term **2.3 MW turbines**, leading the Commission to find that CRW would be using **2.3 MW wind turbine generators**.
 - Page 83 “2.3 116 is 107.5 at 10 m/s and higher at 90 m AGL” and Table 13.3.2.2 Crowned Ridge wind turbine specifications
 - Page 85 “GE 2.3 116,”
- [Figure 4a - Typical Wind Turbine Diagram](#)
 - “GE 2.3 MW Turbine”
- [Figure 4b - Typical Wind Turbine Diagram](#)
 - “GE 2.3 MW Turbine”
- [Appendix H - Sound Level Modeling Report](#), [A1-H - Appendix H - Sound Level Modeling Report](#)
 - Page 3 “137 GE 2.3 MW wind turbines... 13 GE 2.3 MW wind turbines with a hub height of 80 meters for a total of 150 wind turbines”
 - Page 5 “GE 2.3-116”
 - Page 6 Table 1: Crowned Ridge wind energy project wind turbine specifications
 - Page 13 “GE 2.3-116-90 m HH, GE 2.3-116-80 m HH **WTG**” and “GE2.3 116RD 90HH r2.madE” 41 times
 - Page 14 “GE 2.3-116-90 m HH, GE 2.3-116-80 m HH **WTG**” and “GE2.3 116RD 90HH r2.madE” 41 times
 - Page 15 “GE 2.3-116-90 m HH, GE 2.3-116-80 m HH **WTG**” and “GE2.3 116RD 90HH r2.madE” 41 times

- Page 16 “GE 2.3-116-90 m HH, GE 2.3-116-80 m HH **WTG**” and “GE2.3 116RD 90HH r2.madE” 27 times
- Page 18 – 29 “GE 2.3-116-90 m HH, GE 2.3-116-80 m HH **WTG**” for the total of 11 times
 - **In Appendix H CRW presented 2.3 MW WTG (wind turbine generators) 20 times**
- [Appendix I - Shadow Flicker Modeling Report, A1-I - Appendix I - Shadow Flicker Modeling Report](#)
 - **In Appendix I 16 times CRW presented 2.3 MW WTG (wind turbine generators) in addition to many 2.3 MW representations**
- [A5 - Pre-filed Testimony and Exhibits of Tyler Wilhelm and Sam Massey](#)
- [A8 - EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix H](#)
- [A9 - EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix I](#)
- [A20-5 - Attachment 1 to 1-11](#)
- [A20-18 - Supplement to 1-12; Appendix E](#)
- [A20-19 - Supplement to 1-12; Appendix F](#)
- [A22-1 - Exhibit 1 - Supplemental Material That Updates Sound Study to Reflect Landowner Participation Status](#)
- [A22-2 - Exhibit 2 - Tables: Crown cd Ridge Sound Level Tabular Results Sorted by Receptor ID](#)
- [A22-3 - Exhibit 3 - Supplemental Material That Updates Shadow/Flicker Study to Reflect Landowner Participation Status](#)
- [A43-3 - Crowned Ridge Sound Level Tabular Results Sorted by Sound Level Realistic](#)
- [A43-4 - Crowned Ridge Sound Level Tabular Results Sorted by Sound Level \(16 Turbines Removed\) \(Hessler\)](#)
- [A43-5 Crowned Ridge Sound Level Tabular Results Sored by Receptor ID Realistic](#)
- [A45 -Applicant's Responses to Intervenor's Fifth Set of Data Requests to Crowned Ridge Wind, LLC](#)
- [Exhibit A57 - Appendix C-3 Sound Results Table Rev 6](#)
- [Exhibit A67 - Appendix C-1 Shadow Results Table Rev5](#)
- [Exhibit A68 - Appendix C-2 Shadow Results Table Rev5](#)
- [Crowned Ridge Wind, LLC's Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law](#)
 - (i) up to **130 GE 2.3 MW wind turbine generators**; (ii) access roads to turbines and associated facilities; (iii) underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collection substation; (iv) underground fiber-optic cable for turbine communications co-located with the collector lines; (v) the low-side of a 34.5 to 345-kV collection substation; (vi) one permanent meteorological (met) tower; (vii) an operations and maintenance (O&M) facility; and (viii) temporary construction areas, including laydown and batch plant areas.⁶ CRW **footnote** confirms the references in the application ⁶ Ex. A1 at 1, 17-25 (Application); Ex. A1-A (Figures 4a, 4b, and 5); Ex. A54 (Final Land Status Map); and Ex. A59 (Final Land Status and Hessler 7 Turbine Moves)
- [Final Sound Study](#)
- [Final Shadow Flicker Study](#)
- [Exhibit C - Sound Thresholds After the Relocation of Turbine No. CR1-62](#)
- [Exhibit D - Shadow Flicker Threshold After the Relocation of Turbine No. CR1-62](#)
- [Exhibit C - Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID](#)
- [Exhibit D - Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID](#)

- [Attachment 1 - Sound Modeling Table \(curtailment\)](#)
- [Attachment 1 - Sound Modeling Table \(curtailment\)](#)
- [Attachment B - Sound Level Models](#)
- [Attachment 1 - Updated Sound Study](#)
- [Attachment 5 - Shadow Flicker Study](#)
- [Crowned Ridge Wind, LLC's Responses to Staff Data Request 2](#)

On December 30, 2019, Intervenor, Amber Christenson, and Allen Robish presented testimony and Intervenor; Kristi Mogen filed a complaint with the Commission related to evidence that the Applicant has constructed turbines not matching the generator size or model of the turbines permitted. [Complaint 4 - Use of 2.7 MW Turbines](#), [Attachment 1 - Affidavit](#), [Attachment 2 - Photo](#), [Exhibit A22-1 and Exhibit A22-3](#), [Attachment 3 - Photo](#), [Attachment 4 - Photo](#), [Attachment 5 - Article](#)

Of the most importance are the photos taken by Mogen of turbines on-site that clearly show the unit configurations as **MW 2.7-116 LWS + pitch system REH and 2.7 116 – CBP REH PS**

Representatives of Crowned Ridge/NextEra have corroborated this evidence several times since Intervenor information was brought forward.

On December 30, 2019, during Commissioner Meeting, Q/A between Acting Chair, Commissioner Nelson and Josh Tran, director of construction for NEER, “responsible for overseeing all of our construction wind construction projects”. “Commissioner Nelson: I just want to interject a question. And I apologize, but I'm trying to parse your words. Are these, in fact, 2.7 megawatt turbines that are being purposely restricted at 2.3?” “MR. TRAN: Sir, **all of the turbines** for this site are on the 2X platform. **So they have the ability to go over the 2.3 megawatts.**” Transcript page 20 Ln 21-25 and page 21 Ln 1-3 (Exhibit 3)

In Letter from GE dated January 3, 2020 submitted to the Commission by Crowned Ridge: “The **2.7MW capable turbines installed** at Crowned Ridge I were contracted for in March and September of 2018 as part of a 300 unit turbine commitment for 2.3 to 2.7MW capable machines.” [Attachment 4 - Letter from GE](#)

On page 2 of the same GE letter: “1. Please identify each component of a GE 2.72-116 wind turbine that differs from the GE 2.3-116. Response: The **Generator**, Gearbox, Hub and Converter are different for a GE 2.72-116 wind turbine and a GE 2.3-116 wind turbine... 2. Does GE consider the GE 2.3-116 wind turbine to be the same model as a GE 2.72-116 turbine? Please explain. Response: **No**, the 2MW Platform or as referred to in the Crowned Ridge Wind Application as the 2 MW model series 116 is comprised of multiple turbine models ranging from **2.0MW to 2.8MW with 116m and 127m rotor diameters**. Crowned Ridge Wind purchased the 2.3 MW 116m in this Platform or series.” GE does not state how many 2.3MW 116m were purchased.

On January 7, 2020 Commissioners meeting, Commissioner Hanson: "What do you physically have to do with that turbine, that nacelle, generator, in order to change it?" MR. TRAN: "You have to ensure that all your components are 2.7 compatible in that series. On this **site only 10 turbines have the configuration qualities necessary to achieve a 2.7 megawatt just from a turbine level...**" Transcript, page 46, Ln 21-25 page 47 Ln 1-2. (Exhibit 4)

This change of turbine model and turbine generator size without Commission approval is a clear violation the ORDER and State Law. Condition No. 2 (1)(2)(3)(4)(6)(7), Condition No. 22 "material change" and Condition No. 41 (a)(b)(c)(d), SDCL 49-41B-4, and SDCL 49-41B-33 (1)(2)(3)

Condition 2 of the Final Order states: "Applicant shall construct, operate, and maintain the Project in a manner consistent with descriptions in the (1) Application, (2) Application supplements and corrections and commitments... (3) data responses... (4) final ORDER (6) state and local agency (7) evidentiary hearing" Crowned Ridge did not construct turbines in accordance with the generator size and model that was presented during the application process and is therefore in violation.

Condition 22 of the Final Order states: "Any turbine adjustment that does not comply with the aforesaid limitation, or turbine model change, would be considered a "material change" and the Applicant shall file a request for approval of the "material change" prior to making the adjustment pursuant to the following approval process:" CRW did not file a "material change" prior to making the model changes and therefore is in violation.

Condition 41 of the Final Order states: (d) "should the Applicant decide at a later point to use a different turbine model, it shall provide the information required in parts a-c..." CRW did not provide the required information necessary for a model change and is therefore in violation.

In addition, and most importantly, changes to the turbine generator size and model are a clear violation of South Dakota codified law. SDCL 49-41B-4 states: "Any facility, with respect to which a permit is required, **shall** thereafter be **constructed**, operated, and maintained in conformity with such permit including any terms, conditions, or modifications contained therein." The Final Order outlines approval of 2.3 MW wind turbine **generators**, and the applicant has admitted to the use of 2.7 MW generators. CRW is in violation of this law.

CRW made repeated misstatements of material facts throughout the application, hearing, compliance filings, and waiver request. Further, the applicant is not complying with the terms of the permit. Therefore, we ask the Commission to uphold state law, find CRW in violation of SDCL 49-41B-33 (1) (2) (3) and revoke the ORDER.

LNTE Misstatements, Non-Compliance, and Violation Condition No. 2 (1) (2) (3) (4) (7), Condition No. 6, Condition 26, Condition 41 (d), SDCL 49-41B-4, and SDCL 49-41B-33 (1) (2) (3)

On November 27, 2019 Intervenor in CRWII docket 19-027, Amber Christenson, Kristi Mogen and Allen Robish, filed a data request.

On December 12, 2019, CRW responded. With photos of LNTE attachments, not LNTE Blades. It is clear in the photos provided by CRW the LNTE attachments are affixed and not part of the original manufactured blade. [Applicant's Responses to Intervenor Amber Christenson, Kristi Mogen and Allen Robish's Second Set of Data Requests to Applicant](#), and [Attachment 1](#)

On December 13, 2019, CRW admitted in a Waiver Request **CRW did not construct 79 turbines** in compliance with the ORDER. This waiver included affidavits and sound studies.

In the CRW Waiver Request, CRW presented that CRW was using LNTE **attachments** and not LNTE **Blades** as described in the sound studies and responses to data requests.

- January 30, 2019 [Appendix H - Sound Level Modeling Report](#)
- June 5, 2019 [A26 - Responses to PUC Staff's Third Set of Data Requests](#) (3-11)
- June 5, 2019 [A20-19 - Supplement to 1-12; Appendix F](#)
- June 5, 2019 [A1-H - Appendix H - Sound Level Modeling Report](#)

On December 18, 2019, Staff filed a memorandum in support of the CRW Waiver Request, along with attachments including a sound study. Staff did not include in the memorandum an ARSD or SDCL that allows the Commission to grant a waiver of the conditions or SDCL 49-41B-4.

On December 30, 2019, Intervenor, Amber Christenson and Allen Robish presented testimony and Intervenor, Kristi Mogen filed a complaint, in association with CRW Waiver Request, with the Commission requesting the Commission revoke the CRW permit for violations of the ORDER, Condition No.2 and SDCL 49-41B-4 and SDCL 49-41B-33 (1)(2)(3). [Waiver of LNTE Blade Attachments](#)

During the Commissioner meeting on December 30, 2019, CRW admitted it did not construct 79 turbines in compliance with the ORDER. MR. SCHUMACHER: "Commissioners, ...Thank you for the opportunity to provide a brief overview of Crowned Ridge's request for a limited and **temporary waiver of Condition No. 2** of the July 26, 2019, Final Order so that Crowned Ridge may install the low noise trailing edge, or LNTE, **attachment** to its wind turbine blades." CRW admitted to violations of the ORDER (1)(2)(3)(4)(7), Condition No. 6, Condition 26, Condition 41 (d), therefore also violating SDCL 49-41B-4 and SDCL 49-41B-33 (1)(2)(3) Transcript page 3 In 16-20

In the CRW response on January 3, 2020, Letter from GE, stating the turbines in this project were "**contracted for in March and September of 2018**" CRW knew at the time of filing the

CRW Application that the **turbines did not have LNTE Blades, but LNTE attachments**, and chose to provide a misstatement using the word Blades instead of “attachments.” CRW knew but still presented in the Application and responses to Staff Data Requests CRW was using **LNTE Blades, not attachments** this is a violation of SDCL 49-41B-33 (1) [Response to Intervenor Complaints](#), [Attachment 4 - Letter from GE](#)

January 7, 2020 Intervenor Kristi Mogen submitted CRW response to a Data Request concerning LNTE Blades. [Applicant's Responses to Intervenor Amber Christenson, Kristi Mogen and Allen Robish's Second Set of Data Requests to Applicant](#) and [Attachment 1](#)

On January 7, 2020, Brian Murphy attorney for CRW explains the difference between blades and attachments and he did not learn of the issue until December 11, the day before CRW responded to Intervenor's data request for CRWII “So to, again, kind of lay the context, **the deliveries of the blades and attachments were separate**. They were done in late September and early October. The attachments to eight blades and turbines on those blades occurred. At that time, as I said at the December 20 meeting, there should have been communication up the communication chain in my company and to me that it was not possible to attach all the **LNTE attachments** to all the blades. That did not occur, and I was, I thought, very candid and frank that that did not occur. When it did occur was on December 11, and when I learned about that, we immediately made the filing. I'm not saying that's an excuse.” CRW again admits CRW did not construct the Facility in a manner consistent with the Application and responses to data request in which CRW clearly stated the use of LNTE Blades, but instead CRW used **attachments**. This is a violation of the ORDER, Condition No. 2 ORDER (1)(2)(3)(4)(7), Condition No. 6, Condition 26, Condition 41 (d), therefore also violating SDCL 49-41B-4 and SDCL 49-41B-33 (1)(2)(3) Transcript pg 27 ln 3-16

Even though, at the time of the January 7, 2020, Commissioners meeting, the Commission and staff were aware of several CRW violations of law, the Commission granted the CRW waiver request and did not consider the complaints to revoke the permit “COMMISSIONER NELSON: Mr. Chair, if I could maybe raise a tangential issue to this, Staff -- and I don't remember the day -- filed a letter clarifying the fact that because there are now complaint dockets that have been -- or complaint issues that have been formally filed, that those will need to be handled separately from the issue at hand today. And I just want to say from my perspective, I concur with that” Transcript page 5 ln 24-25 and page 6 ln 1-5

In the Application and in the response to Staff data request, CRW presented the LNTE Blades, not attachments for noise mitigation in the sound studies. **CRW admitted CRW did not construct 79 turbines** with LNTE Blades and is in violation of the ORDER, Condition No. 2 (1)(2)(3)(4)(7), Condition No. 6, Condition 26, Condition 41 (d), SDCL 49-41B-4, and SDCL 49-41B-33 (1)(2)(3)

CRW made repeated misstatements of material facts throughout the application, hearing, compliance filings, and waiver request. Further, the applicant is not complying with the terms of the permit. Therefore, we ask the Commission to uphold state law, find CRW in violation of SDCL 49-41B-33 (1) (2) (3) and revoke the ORDER.

Deceptive Receptor Locations, Sound Modeling Studies Unreliable, Non-Compliance and Violation Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3)

June 5, 2019 pre-filed testimony of Jay Haley **“The receptors in Grant County were modeled 50 feet from the perimeter where the ordinance specifies 25 feet.”** Page 4 Ln 11-12 This in fact a misstatement, the receptors, used in all the sound models are not 50 feet from the perimeter in Grant County. The Commission should find Jay Haley, made misstatements, committed a misdemeanor, and revoke the ORDER granted because of deception. SDCL 49-41B-34 and SDCL 49-41B-33 (1). (Exhibit 5-6 CR1-G34 and Exhibit 7-8 CR1-C16) [Supplemental Testimony of Jay Haley](#) page 3 of 7, Ln 6-12

June 11, 2019 CRW filed the Joint “within 25 feet of any non-participating residence” [Exhibit A61 - Joint Stipulation of Agreed to Conditions Between Crowned Ridge and PUC Staff](#)

June 12, 2019 CRW filed Amended Condition No. 26 with the 25 feet requirement “within 25 feet of any non-participating residence” [Exhibit A63 - Amended Condition 26 \(Sound Level\)](#)

July 26, 2019, Commission filed the ORDER including Condition No. 26. “... exclusive of all unrelated background noise, shall not generate a sound pressure level ... of more than 45 dBA as measured within **25 feet** of any non-participating residence.”

On July 29, 2019, CRW filed a pre construction compliance filing using deceptive receptor locations. All the receptor locations are on the home and not 25 feet from the home, making the sound modeling studies unreliable. CRW has not proven (SDCL 49-41B-22 burden of proof) that **sound will not be more than 45 dBA anywhere within 25 feet of the non-participating residence** (exclusive of all unrelated background noise). Condition No. 26 of the ORDER, “...45 dBA as measured within 25 feet of any non-participating residence...” To further the deception, CRW in many cases, two examples provided, **CRW placed the receptor on the far side of the home from the turbines**, which can add another 50- 100 feet from the turbine which is the noise source. CRW should not have used the farthest side of the house from the turbine, as it will not provide a true result for the noise impacts to non-participants. **CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3).** [Final Sound Study](#)

- CR1-C16-NP Non-P Structure **43.0**
- CR1-G34-NP Non-P Structure **40.8**

On September 17, 2019, CRW filed a notice of turbine location change with a sound study using the same non-compliant receptor locations. CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3) [Exhibit C - Sound Thresholds After the Relocation of Turbine No. CR1-62](#)

- CR1-C16-NP Non-P Structure **43.1**
- CR1-G34-NP Non-P Structure **40.7**

On September 23, 2019, CRW filed a notice of turbine location, change with a sound study using the same non-compliant receptor location. CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3) [Exhibit C - Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID](#)

- CR1-C16-NP Non-P Structure **42.5**
- CR1-G34-NP Non-P Structure **40.8**

December 13, 2019 CRW filed a Request for a Waiver again two sound modeling tables using the same deceptive receptor locations. All the receptor locations are on the home and not 25 feet from the home, and defiantly not 50 feet in Grant County as filed in Jay Haley pre-filed testimony. CRW has not proven (SDCL 49-41B-22 burden of proof) that **sound will not be more than 45 dBA anywhere within 25 feet of the non-participating residence**. CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3) [Attachment 1 - Sound Modeling Table \(curtailment\)](#) , [Attachment 2 - Sound Modeling Table \(with LNTE\)](#)

- CR1-C16-NP Non-P Structure **42.2** Attachment 1
- CR1-G34-NP Non-P Structure **40.8** Attachment 1
- CR1-C16-NP Non-P Structure **42.2** Attachment 2
- CR1-G34-NP Non-P Structure **42.0** Attachment 2

December 30, 2020 CRW Jay Haley “The reason for that was to try to keep10 our numbers and our comparisons as much of an apples-to-apples comparison as possible” page 26 Ln 10-12

In CRW response to Staff data request filed January 6, 2020, CRW used the same deceptive receptor locations. CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3) [Crowned Ridge Wind, LLC's Responses to Staff Data Request 2](#)

In the same response, for the 0.3 attenuation sound model, 16 Curtailed turbines, which are different from the 15 turbines, CRW proposed to curtail in the December 13, 2019 filing and testimony on December 30, 2019 and January 7, 2020. CRW once again changed the inputs to the sound modeling, not comparing apples to apples. CRW still used receptor locations not in compliance with pre- filed testimony of Jay Haley or the ORDER.

- 0.3 attenuation CR1-G16-NP Non-P Structure **44.1**
- 0.3 attenuation CR1-G34-NP Non-P Structure **42.5**

In the same response, for the 0.0 attenuation sound model, 30 Curtailed turbines, instead of comparing apples to apples, CRW changed the method once again, but did not correct the non-compliance receptor locations.

- 0.0 attenuation CR1-C16-NP Non-P Structure **43.1**
- 0.0 attenuation CR1-G34-NP Non-P Structure **44.5**
- On January 6, 2019, Intervenor Kristi Mogen filed two screen shots of CRI-G-34 showing deceptive receptor location. [Peterson Family Farm 1](#) and [Peterson Family Farm 2](#)

From December 13, 2019 to January 6, 2020 CRW presented 6 different sound studies, this is very concerning, but not as concerning as the Staff knowing of errors and recommending CRW self report. “The **error** in the sound modeling that supported the December 13, 2019, LNTE waiver request is a concern to Staff. Staff expects Crowned Ridge to provide accurate information for the Commission to base its decision. As a result, Staff recommends on-site sound testing discussed below to ensure compliance with regulatory sound limits” Staff 2nd Memorandum filed on January 6, 2020 page 8 [Staff's Second Memorandum on Request for Limited and Temporary Waiver of Crowned Ridge Wind, LLC](#)

CRW submitted erroneous sound modeling studies. In a footnote of the Staffs Memorandum filed on December 18, 2019 “**2 Staff was notified via email that the affidavits filed with the Temporary Waiver Request were missing turbine 52.**” In Staff Second Memorandum “ The request now identifies that Crowned Ridge will need to curtail four turbines (29, 44, 48, and 95) at **wind speeds greater than 6 meters per second**. The LNTE temporary waiver request filed on December 13, 2019, identified that 6 turbines (21, 29, 37, 44, 48, and 95) had to be curtailed at wind speeds greater than 9 meters per second. ... Further, Crowned Ridge stated the reduction in the wind speed at which the turbines need to be curtailed resulted from a **correction to the sound model.**” [Staff Memorandum on Request for Limited and Temporary Waiver of Crowned Ridge Wind, LLC](#) and [Staff's Second Memorandum on Request for Limited and Temporary Waiver of Crowned Ridge Wind, LLC](#)

On January 6, 2020, Intervenor Kristi Mogen filed a Response concerning the erroneously use of ISO 9613-2 in the sound modeling studies. (Exhibit 9) [Intervenor Kristi Mogen's Response to Crowned Ridge Wind LLC Response to Mogen Complaints](#) and [Attorney Overland's Letter to MN PUC Regarding Improper Ground Factors](#) and [Robert W. Rands's Professional Opinion filed in PUC Docket EL18-053](#) and [Applicant's Appendix D-Pre-Construction Wind Turbine Noise Analysis filed in PUC Docket EL18-053](#) and [Richard R. James Testimony filed in PUC Docket EL18-026](#)

By January 6, 2020, CRW has presented 80 sound entries and in regards to Amber Christenson 29 different values. (Exhibit 10)

CRW has provided deceptive receptor locations that are not compliant with the ORDER Condition No. 26. CRW has submitted erroneous sound modeling studies. CRW made misstatements in pre-filed testimony. The Commission should find CRW violated the ORDER Condition No. 2 (4) (7), Condition 6, Condition 26, and CRW is in violation of SDCL 49-41B-34 and The Commission should revoke the ORDER. SDCL 49-41B-33 (1) (2) (3)

Change in Hub Heights, Non Compliance and Violation Condition No. 2 (1) (2) (3) (4) (6) (7), SDCL 49-41B-4, and SDCL 49-41B-33 (1) (2) (3)

In testimony and Complaints filed on December 30, 2019, Intervenor Amber Christenson, Allen Robish, and Kristi Mogen point out that CRW changed the hub heights on turbines CRI-89, CRI-90, CRI-91, CRI-97, from 80 meters to 90 meters. [Complaint 2 - Change in Hub Heights](#)

June 5, 2019 CRW filed the CUP Applications for Grant and Codrington Counties. Like the PUC ORDER, the local agency permits attach the description in the application to the Findings of Fact and conditions of the permit. Clearly, CRW constructed turbines with higher hub heights than CRW presented in the local agency CUP Applications. This is a violation of Condition No. 2 applicant shall construct, operate, and maintain the Project in a manner consistent with (6) all applicable permits issued by a federal, state, or local agency with jurisdiction over the project. CRW pre filed exhibits. [A20-5 - Attachment 1 to 1-11](#) and [A20-19 - Supplement to 1-12; Appendix F](#)

December 30, 2019 testimony Commissioner meeting Acting Chair Commissioner Nelson "Commissioner ... It appears to me if the issue that's been raised about this 80 versus 90 meter hub height has -- **is accurate, we've got much bigger questions on our plate** than we came in with today" Transcript pg 70 Ln 6-12 (Exhibit 7)

On January 3, 2020 in the CRW response to Intervenor complaints page 6 CRW admits to using higher hub heights. "As explained at the December 30, 2019 hearing, the **change in the hub heights** of the four turbines from 80 to 90 mhh..." CRW again admits CRW did not construct the Facility in a manner consistent with the ORDER Condition No. 2 (1) (2) (3) (7), SDCL 49-41B-4, and SDCL 49-41B-33 (2) (3) [Response to Intervenor Complaints](#)

In Affidavit of Tyler Wilhelm filed on January 6, 2020, Tyler Wilhelm employed by NEER and the Senior Project manager, knows the 4 turbines are 90 meters. Tyler goes on to state "turbines CRI-89, CRI-90, CRI-91, and CRI-97 have been compliant with all the applicable state, county, and federal, setbacks." Mr. Wilhelm only told half the truths. This is a misstatement. The turbines comply with selective parts of the permits, but SDCL 49-41B-4 clearly states, "...shall thereafter be **constructed**, operated, and maintained in **conformity** with such permit including any terms, conditions, or modifications contained therein." Tyler admitted, CRW did not construct the 4 turbines consistent with Condition No.2 (1) (2) (3), SDCL 49-41B-4 and SDCL 49-41B-33 (1) (2) (3). [Affidavit of Tyler Wilhelm](#)

On January 6, 2020 in Staff Second Memorandum, page 5 "Staff agrees with the Intervenor that the **Applicant did not construct the facility consistent with the Application** or the July 29, 2019 preconstruction filing." Staff admits CRW violated the law SDCL 49-41B-4 [Staff's Second Memorandum on Request for Limited and Temporary Waiver of Crowned Ridge Wind, LLC](#)

Also in the January 6, 2020 filing CRW response to Staff data request question 4. "Please identify each turbine that has a different hub height from what was included in the July 29, 2019, preconstruction filing. Response: The **wind turbines that have a different hub height** from what was included in the July 29, 2019 preconstruction filing are the following: CR1-89,

CR1-90, CR1-91, and CR1-97.” Again CRW admitting CRW did not construct the facility consistent with Condition No. 2 (1) (2) (3) (4) (6) (7), SDCL 49-41B-4 and SDCL 49-41B-33 (2) (3)

CRW has admitted CRW did not construct the Facility in a manner consistent with the descriptions in the Application, Application supplements and corrections, commitments made in data responses, and evidence presented by Applicant at the evidentiary hearing Condition No. 2 (1)(2)(3)(4)(7). CRW has admitted and staff agrees, CRW did not construct the facility in compliance with the ORDER. We ask the Commission to uphold state law, require CRW to remove or replace turbines with changed HH and find CRW and NEER employee representing CRW, Tyler Wilhelm have committed misdemeanors, impose penalties, and suspend the ORDER until CRW is in compliance ORDER and/or revoke the ORDER, Condition No. 2 1)(2)(3)(4)(6)(7), SDCL 49-41B-4, SDCL 49-41B-34 and SDCL 49-41B-33 (1)(2)(3).

CRW changed turbine locations. CRW does not comply with the requirements of Condition No.2 (1) (3) (7) and Condition No. 22 of the ORDER, SDCL 49-41B-4 and SDCL 49-41B-33(1) (2) (3).

In Complaints filed on December 30, 2019, Intervenor Kristi Mogen pointed out that CRW changed the location of turbines CRI-50 and CRI-ALT22. [Turbine Location Changes for Turbines CRI-50 and CRI-ALT22](#)

January 3, 2020, CRW responded to Kristi Mogen using Exhibits A59, A56, A57, A67, and A68. None of these exhibits, presented last minute during the evidentiary hearing, provides turbine locations. **CRW failed to provide an exhibit with the exact turbine locations for CRI-ALT 22 and CRI-50 until CRW filed the new turbine locations coordinates in the July 29, 2019 preconstruction compliance filing.** This is a violation of Condition No. 22, SDCL 49-41B-4.

Changes to CRI-50 and CRI-Alt 22 turbine locations, here they are again,

Date	Turbine	Easting	Northing	Easting	Northing	link
1-30-19	CRI-50	662,999	4,991,662			Appendix H - Sound Level Modeling Report
	CRI-ALT22			662,551	4,985,877	
1-30-19	CRI-50	662,999	4,991,662			Appendix I - Shadow Flicker Modeling Report
	CRI-ALT22			662,551	4,985,877	
2-27-19	CRI-50	662,999	4,992,622			EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix H
	CRI-ALT22			662,551	4,986,877	
2-27-19	CRI-50	662,999	4,991,622			EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix I
	CRI-ALT22			662,551	4,986,877	
6-5-19	CRI-50	662,999	4,991,622			A8 - EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix H
	CRI-ALT22			662,551	4,986,877	
6-5-19	CRI-50	662,999	4,991,622			A9 - EAPC Wind Energy's Letter and Updated Appendices A through D for Appendix I
	CRI-ALT22			662,551	4,986,877	
6-5-19	CRI-50	662,999	4,991,622			A20-19 - Supplement to 1-12; Appendix F
	CRI-ALT22			662,551	4,986,877	
6-5-19	CRI-50	662,999	4,991,622			A22-1 - Exhibit 1 - Supplemental Material That Updates Sound Study to Reflect Landowner Participation Status
	CRI-ALT22			662,551	4,986,877	
6-5-19	CRI-50	662,999	4,991,622			A22-2 - Exhibit 2 - Tables: Crown cd Ridge Sound Level Tabular Results Sorted by Receptor ID
	CRIALT22			662,551	4,986,877	
6-11-19	No UTM					A55 - Proposed Turbine Drops and Moves
6-11-19	No UTM					A55 - Proposed Turbine Drops and Moves

6-11-19	No UTM					Exhibit A56 - Appendix D Sound ISO-Lines Map Book Hessler
6-11-19	No UTM					Exhibit A57 - Appendix C-3 Sound Results Table Rev 6
6-11-19	No UTM					Exhibit A67 - Appendix C-1 Shadow Results Table Rev5
6-11-19	No UTM					Exhibit A68 - Appendix C-2 Shadow Results Table Rev5
6-11-19	No UTM					
7-29-19	CRI-50	662,930	4,991,655			Final Sound Study
	CRI-ALT22			662,484	4,986,902	
7-29-19	CRI-50	662,930	4,991,655			Final Shadow Flicker Study
	CRI-ALT22			662,484	4,986,902	
12-13-19	CRI-50	662,930	4,991,655			Attachment 1 - Sound Modeling Table (curtailment)
	CRI-ALT22			662,484	4,986,902	
12-13-19	CRI-50	662,930	4,991,655			Attachment 2 - Sound Modeling Table (with LNTE)
	CRI-ALT22			662,484	4,986,902	
1-3-20	CRI-50	662,930	4,991,655			Attachment 1 - Updated Sound Study
	CRI-ALT22			662,484	4,986,902	
1-6-20	CRI-50	662,930	4,991,655			
	CRI-ALT22			662,484	4,986,902	Crowned Ridge Wind, LLC's Responses to Staff Data Request 2

On July 29, 2019 in the CRW letter accompanying the pre-construction compliance filing, CRW pointed out “Turbine **CR-Alt 22** was been shifted approximately 33 feet to the south for constructability purposes” There was no mention of turbine CRI-50. CRW did not file for either CRI-ALT 22 or CRI-50 the ORDER required setback compliance information Condition No. 22. [Crowned Ridge Wind, LLC's Letter regarding Compliance Filing and Notice of Commencement of Construction](#)

Unknown turbine adjustments may affect the health safety and welfare of people. It is the Commission’s responsibility and it will not be tolerated. CRW did not comply the ORDER, Condition No.2 (1) (3) (7) and Condition No. 22 of the ORDER, SDCL 49-41B-4 and the Commission should revoke the ORDER SDCL 49-41B-33(1) (2) (3).

ADLS CRW not in compliance with Condition No.2 (1) (2) (3) (7), Condition 33 and SDCL 49-41B-25.5, SDCL 49-41B-4 and 49-41B-33 (1) (2) (3)

On March 1, 2019 CRW Response to Staff second data request 2-10) Refer to page 20 of the Application, has the company submitted its application for ADLS to the FAA? If not, when will that application be submitted? Response: Crowned Ridge Wind will file for the use of an Aircraft Detection Lighting System (ADLS) after receipt of Determinations of No Hazard (DNH)

Crowned Ridge Wind anticipates filing the application with the FAA for the use of an ADLS in August 2019. Respondent: Sam Massey, Director of Renewable Development Tyler Wilhelm, Project Manager CRW did not file with the FAA for the use of ADLS in August 2019. CRW did not file until complaints by Intervenor and the public, and Staff inquiry. This is a violation of the ORDER Condition No. 2 (3) (7) and in violation of SDCL 49-41B-33(1) [A16 - Responses to PUC Staffs Second Set of Data Requests](#)

On December 30, 2019, Intervenor Kristi Mogen filed 6 complaints.

On January 3, 2020, CRW responded, with information concerning the ADLS lighting. "The only other change is due to the 100 MW deferral and involves the Aircraft Detection Lighting System ("ADLS") which had to be moved to the 200 MW electrical system." This is further addressed in Staff letter dated January 7, 2020. [Response to Intervenor Complaints](#)

In the public comment period of the January 7, 2020 Commissioner Meeting, a member of the public voiced his concerns about ADLS lighting that was not installed on the CRW turbines.

On January 13, 2020, Commission Staff filed petition order to show cause "Staff believes Crowned Ridge does not plan on equipping the Project with an operating ADLS prior to operation." SDCL 49-41B-25 and 49-41B-25.2. [Petition for Order to Show Cause](#)

CRW has shown disregard to the Conditions of the ORDER and State Laws. The Commission should Revoke the ORDER in accordance to SDCL 49-41B-34 and SDCL 49-41B-33 (1) (2) (3).

Lek Mitigation Non Compliance and Violation Condition No. 6, Condition No. 45, SDCL 49-41B-4, and SDCL 49-41B-33 (2) (3)

The Final Order issued July 26, 2019 includes a condition outlining CRW to work with Staff to create a Lek habitat mitigation plan 60 days prior to construction. . Final Order paragraphs 25-29 and Condition 45. [Final Decision and Order Granting Permit to Construct Facility; Notice of Entry with Permit Conditions](#)

On October 3, 2019, CRW requested a 60-day extension to file the Lek habitat mitigation plan. [Crowned Ridge Wind, LLC's Letter regarding Condition No. 45.](#)

CRW once again admitted it could not comply with the ORDER and asked for an extension. The Commission should consider all of the CRW non-compliances and revoke the ORDER SDCL 49-41B-33 (1) (3)

100MW Deferral Condition No. 2 (1) (2) (3) (4) (5) (7), Condition No. 41 (b) (c), SDCL 49-41B-4 and SDCL 49-41B-33

On July 29, 2019, just 3 days after the Commission signed the ORDER; CRW filed the preconstruction compliance filing, as required in the ORDER Condition 41. This filing included a map with 143 turbines, including alternates, and sound and flicker models studies for 300MW facility. [Crowned Ridge Wind, LLC's Letter regarding Compliance Filing and Notice of Commencement of Construction](#), and [Final Project Area Map](#) and [Final Project Maps](#) and [Final Sound Study](#) and [Final Shadow Flicker Study](#)

On September 12, 2019, CRW filed a deferral of 100MW. CRW/NextEra would only construct 87 turbines, reducing the Facility by a third, changing the turbine size, height, location, and the noise and flicker. CRW did not construct the Facility as presented during the evidentiary hearing and preconstruction compliance filing. For the new 87 turbine CRW Facility, CRW did not provide sound level and flicker analysis as required in Condition No. 41 (b) (c) (d). According to CRW, this 100 MW deferral/drop caused other issues with CRW compliance, such as Hub Height and ADLS lighting. [Deferral of Constructing of 100 MWs of the Wind Facility](#) and [Intervenors' Reply Letter Requesting the Commission Revoke Crowned Ridge Wind LLC's Permit](#) and [Intervenors' Post-Hearing Brief](#) and [Exhibit A - Intervenors' Proposed Findings of Fact and Conclusions of Law](#)

CRW has a pattern of deception by either misstatements or omission, and only takes action after being caught by Intervenors. The CRW Facility was not ready as evident at the end of the evidentiary hearing. See Intervenors Post Hearing Brief. CRW does not comply with the Conditions of the ORDER. The Intervenors are very concerned that CRW will continue this pattern of behavior. It is past time the Commission takes action and enforces the ORDER, and laws of the State of South Dakota. Condition No. 2, Condition No. 6, Condition No. 22, Condition 26, Condition 33, Condition 41, Condition 45 and SDCL 49-41B-4. Because of the numerous violations we ask the Commission find CRW has made misstatements and violations and impose penalties SDCL 49-41B-34 and that the Commission revoke the ORDER SDCL 49-41B-33 (1)(2)(3).

