

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

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**IN THE MATTER OF THE  
APPLICATION BY CROCKER WIND  
FARM, LLC FOR A PERMIT OF A  
WIND ENERGY FACILITY AND A 345  
KV TRANSMISSION LINE IN CLARK  
COUNTY, SOUTH DAKOTA, FOR  
CROCKER WIND FARM**

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**STAFF’S FIFTH SET OF DATA  
REQUESTS TO CROCKER WIND  
FARM, LLC**

**EL17-028**

Below, please find Staff’s Fifth Set of Data Requests to Crocker Wind Farm, LLC. Please submit responses within 10 business days, or promptly contact Staff to discuss an alternative arrangement. In addition, please specify the responder when answering each interrogatory. Should any response have subparts answered by more than one individual, identify the respondent by subpart.

**5-1) Refer to Page 9-2 of the Application. Crocker Wind Farm, LLC states “The current layout of up to 200 turbines reflects the optimal configuration to best capture wind energy while meeting required setbacks from residences and other local features, avoiding cultural resources and wildlife habitat.” (*emphasis added*) Does the current layout of up to 200 turbines meet required setbacks from residences based on the Conditional Use Permit? Explain. If the statement was made in error, provide the appropriate changes to the above statement.**

Melissa Schmit: The statement should read, “The current layout of up to 200 turbines reflects the optimal configuration to best capture wind energy while meeting/exceeding required setbacks from residences as defined in the Clark County Zoning Ordinance and other local features, avoiding cultural resources and wildlife habitat.”

**5-2) Refer to the letter filed by Crocker Wind Farm, LLC on September 5, 2017 in the above referenced docket, Written Findings of the Clark County Board of Adjustment Hearing for Conditional Use Permit – Crocker Wind Farm, LLC CU1-17.**

**a) Refer to Finding #16. Has Crocker Wind Farm, LLC identified any adjoining landowners willing to agree to lesser setbacks than those established by the findings? Explain.**

Melissa Schmit: On March 27, 2017, the Clark County Board of Adjustment requested Crocker contact non-participating landowners to determine if any would be willing to agree to a lesser setback. On March 29, 2017, Crocker sent a letter via certified mail to all adjoining non-participating landowners offering a final opportunity to participate in the Project under the same

terms of compensation as other agreements in the Project. None of the landowners contacted were willing to agree to lesser setbacks.

**b) Refer to Finding #18. The County states that “the testimony provided by Interstate Telecommunications Cooperative does necessitate that applicant make an agreement with the cooperative, specifically incorporating the terms and conditions contained in a Resolution proposed by Interstate Telecommunications Cooperative ...”.**

**i. Provide the Resolution referenced above.**

See attached.

**ii. Provide an update on the status of the agreement with Interstate Telecommunications Cooperative.**

Melissa Schmit: Crocker has been actively coordinating the ITC to re-route collection lines, calculating appropriate line separation between copper communication, and define testing procedures and terms of mitigation in order to execute an agreement. Refer to the attached email dated September 8, 2017 for the most recent communication with the ITC.

**iii. Identify and explain the areas where there is disagreement between ITC and Crocker in resolving this issue.**

Melissa Schmit: The Resolution provided by the ITC at the Crocker Conditional Use Permit Hearing on March 7, 2017 contains provisions that require further negotiation and clarification. The draft agreement lacks details including verified testing procedures, information on current level of service. In addition, the agreement does not quantify potential impacts based on the Project’s layout. As the Project moves through permitting, design changes may result and Crocker has requested an agreement with the ITC is executed once detailed design work is completed in mid-2018. The Project’s CUP with Clark County requires an agreement is in place prior to construction and Crocker will satisfy this requirement following proper due diligence. Crocker is committed to an agreement with ITC that protects ITC’s customers and appropriately addresses impacts specific to the project’s interactions with ITC’s network.

**c) Refer to Finding #19 regarding the requirement to make a good faith effort to employ an Aircraft Detection Lighting System. When does Crocker Wind Farm, LLC plan presenting the study to the Board of Adjustment? Explain the proposed timeline.**

Melissa Schmit: In order to complete the study Crocker was required to refile the project with the FAA. When a project is refiled, the FAA deletes the previous determinations because they prohibit cumulative evaluation of radar impacts. The study could take months as the FAA has not timeline to complete their reviews. We are evaluating a number of issues including installation requirements which include a few additional lattice towers to mount the radars on and if acceptable terrain is present for adequate radar coverage. Crocker has been working with

multiple technology vendors to determine the suitability of the technology. Once the study is complete Crocker will provide the analysis to Clark County.

**5-3) Provide and explain Crocker Wind Farm, LLC’s position on Wind Turbine Syndrome (“WTS”) as a potential impairment to the health of inhabitants under 49-41B-22(3).**

Melissa Schmit and Eddie Duncan: Wind Turbine Syndrome (WTS) for the purpose of this response pertains to the self-published work of Nina Pierpont associated with her phone interviews of 10 case families consisting of 23 individuals with self-reported problems. Ms. Pierpont has a hypothesis that WTS is caused by infrasound affecting the vestibular organs of the inner ear. WTS is not recognized by the U.S. Centers for Disease Control and Prevention or any other world health body and has been based on anecdotal evidence rather than facts or research. Her work is not supported by any peer-reviewed studies. Crocker has reviewed a number of peer reviewed papers examining wind turbine and human interactions and has not identified credible claims associated with her research. In fact, as indicated in peer reviewed papers, Ms. Pierpont’s study has a number of issues associated with it including selection bias as she invited families to participate in the study if they thought they had the symptoms she associates with WTS. Her study did not include noise measurements or medical examinations. McCunney et al. and Leventhall contend that there has been no demonstration that humans can perceive sub-audible infrasound, citing the relative insensitivity of the inner ear (where the vestibular system is located) to airborne sound and the presence of other low to moderate magnitude infrasound sources in the body and the environment.<sup>1</sup>

**5-4) Potential community noise impacts from low frequency and infrasonic sound due to the Project were not addressed in the noise assessment report. Please provide an addendum to the report or supplemental write-up explaining whether any such impacts are anticipated or not, and why.**

See attached memo.

**5-5) Explain the coordination and communication between Crocker Wind Farm, LLC and Township Boards’ within the project area that is currently being conducted to ensure the successful implementation of this project.**

Melissa Schmit: Crocker mailed project notification letters to townships within the project area dated October 24, 2016. Follow up calls were made November 10, 2016 to answer any

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<sup>1</sup> McCunney, Robert, et al. “Wind Turbines and Health: A Critical Review of the Scientific Literature.” *Journal of Occupational and Environmental Medicine*. 56(11). November 2014. pp. e108-e130.  
Leventhall, Geoff. “Infrasound and the ear.” *Fifth International Conference on Wind Turbine Noise*. Denver, Colorado: 28-30 August 2013.

questions/concerns and at that time Crocker offered to attend a township meeting. No township expressed concerns about the Project or interest in staff attending a meeting. As development continues Crocker will coordinate with townships in the Project Area to execute road agreements prior to construction.

**5-6) Has there been any communication between Crocker Wind Farm, LLC and the Highway Superintendent of Clark County to discuss this project? Explain.**

Melissa Schmit: Crocker representatives have been actively coordinating with Clark County through prior to and throughout the conditional use permit process to provide project updates and answer questions from both county staff and community members. Informal communication has occurred with the Highway Superintendent of Clark County while attending regularly scheduled Clark County Commission meetings. It was communicated at that time Crocker will be reaching out following permitting to begin formal coordination on a road use agreement. Additionally, county staff reached out via email in March of 2017 on behalf of the Highway Superintendent with questions about projected road use and construction methods. Crocker replied with information pulling from prior project experience. Crocker offered to have a meeting with the appropriate county staff and the Highway Superintendent to continue discussion on road use. A reply from Clark County was not received. As required by the Project's Conditional Use Permit, road use agreements will be place and provided to Clark County 60 days prior to construction.

**5-7) Identify any adverse traffic impacts as a result of the construction of the Crocker Wind Farm and explain how the Applicant will mitigate any impacts.**

Jay Hesse and Rob Copouls: Due to the increased road use in the Project Area during construction we will coordinate with road authorities to establish road use agreements that will be in place prior to construction to ensure the safe and efficient use of roads during construction to minimize and mitigate the overall impact. The Project will develop a detailed civil construction plan based on the Project's requirements and include road impact plans and planned delivery haul routes.

When the Project is in the process of making road improvements, local traffic will either be directed safely through the work area or around on alternate routes if needed. If practical, roads will be designed to allow two-way traffic so construction and local traffic will be able to use the roads during construction of the Project. Some delays or detours are expected during this phase to enable the road improvements but the project will have plans to enable the traffic to move safely. Industry and state standards for traffic control will be utilized. The delays and detours would be similar to those that would occur if the roads were being upgraded at will by the township or county that manages the roadway. The project team will coordinate with the school bus system, other transit or frequent road users to minimize any disruptions.

During construction, the contractor will utilize best management practices (BMPs) and the planning from the civil construction documents to ensure the local community can continue to

utilize public roads. While some delays or detours are expected during construction, the impacts will be similar in nature to what can occur during peak farming operations or other road improvements. The project team will coordinate with the school bus system, other transit or frequent road users to minimize any disruptions. Additional coordination will occur during peak harvest time to ensure farmers are able to utilize the public roads as well. Local project management and support staff will be available on-site to address concerns or challenges that occur during construction. The Project will implement the following to minimize any adverse traffic impacts; improved roads to handle two-way traffic during construction, proper signage, project based speed limits, follow state/local road requirements, dust control, safety personnel on site, and road agreements.

**5-8) Refer to Page 15-11 of the Application. Crocker Wind Farm, LLC states “The Department of Commerce (“DOC”) and the Department of Energy (“DOE”) expressed concerns the Wind Farm Project may obstruct radio frequency transmissions or weather radar. Crocker is coordinating with both agencies to assess potential impacts and will continue to do so as the Project layout is finalized.”**

**a) Provide all correspondence with the DOC and DOE regarding this issue.**

Melissa Schmit: All correspondence is included in Appendix G of the Application.

**b) Explain the potential impacts to radio frequency transmissions or weather radar from the Crocker Wind Farm.**

Melissa Schmit: A portion of the Project Area is located within the National Oceanic and Atmospheric Administration (NOAA) “Notification Zone” meaning impacts to the surrounding weather surveillance radar are unlikely; however, the Radar Operations Center will reevaluate the Project when turbines are sited and track the Project to completion to fully understand and anticipate potential impacts. Crocker’s team has worked with NOAA on similar issues and does not anticipate material problems with them.

**c) Explain how the Applicant intends to resolve or mitigate these concerns.**

Melissa Schmit: Crocker will implement the suggested mitigation strategies to reduce impacts to radar listed in the response from the DOC/DOE to finalize the Project’s layout. Crocker will provide a final layout to the agencies for review and implement further mitigation as necessary.

Dated this 4<sup>th</sup> day of October, 2017.



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Melissa Schmit