



# BIG BLUE WIND FARM

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August 4, 2017

Mr. Kevin George  
State of Minnesota  
Public Utilities Commission  
Via E-mail to: [kevin.george@state.mn.us](mailto:kevin.george@state.mn.us)

RE: Permittee: Big Blue Wind Farm, LLC  
Permit Type: Large Wind Energy Conversion System  
Location: Faribault County, Minnesota

Dear Mr. George:

We are in receipt of your letter dated August 1<sup>st</sup>, 2017, requiring a written summary of the issues related to the complaint of Dan Moore. Please note, while Mr. Moore may operate and farm in the general area of Big Blue Wind Farm, we are not aware that Mr. Moore is a participating landowner.

Big Blue Wind Farm (“BBWF”) and the MN PUC received a complaint from Mr. Moore in March of 2017, indicating he was hearing noises coming from the wind turbines at the BBWF site, which we reported to the MNPUC. BBWF investigated the claimed noise and consulted with the turbine supplier, Gamesa. BBWF also conducted a noise study concerning the affected turbines, about which Mr. Moore is complaining. In any event, we are proceeding to address the noise complaint.

Gamesa indicated that their global and regional investigation of the noise problem determined the sound is coming from the hub - main shaft union, slipping and allowing contact of the bolts against the main shaft. Gamesa implemented a fix to the wind turbines at the BBWF Site in May 2017, of replacing the bolts with studs gaining a more precise torque to eliminate the intermittent noise. This corrective action was not successful.

Gamesa is now working with its new owner Siemens, and their design team, to assess the issue and implement a different corrective action. Gamesa was working on a friction shim solution, and in consultation with legacy Siemens Engineers, it was discovered that a similar issue had been solved in the Siemens fleet with a similar friction shim. Gamesa/Siemens proceeded to order the material to fabricate the shims, which are necessary to install for the corrective action. The material, cranes and installers will be on site at the Big Blue Wind Farm on September 18<sup>th</sup>, 2017, with corrective action to begin at that time and continue until each wind turbine is addressed.

As directed by the MN PUC, BBWF is presenting a current summary of issues related to Mr. Moore complaint of excessive noise. We have been communicating with Mr. Moore and would like the opportunity to implement the corrective action, prior to meeting with Mr. Moore again, as we have been advised by the Gamesa/Siemens team that they are very optimistic this corrective action will reduce or eliminate the clicking noise. We are still ready to meet with the MN PUC and Gamesa/Siemens on Site on Wednesday, August 9<sup>th</sup>, 2017 to discuss this corrective action plan. We assume you will present any questions you have at that time.

Please feel free to contact us with any questions.

Sincerely,



Evan Fagen

Vice President

Big Blue Wind Farm. LLC