



# BIG BLUE WIND FARM

501 W Hwy 212  
Granite Falls, MN 56241  
P: 320.564.3324 F: 320.564.3278

August 29, 2017

## Via Electronic Filing

Mr. Daniel Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 Seventh Place East, Suite 350  
St. Paul, MN 55101-2147

**Re: *In the Matter of Big Blue Wind, LLC 36 Megawatt Large Wind Energy Conversion System in Faribault County, Minnesota, IP-66851/WS-10-1238***

## **Response of Big Blue Wind, LLC**

Dear Mr. Wolf:

Big Blue Wind Farm, LLC (“Big Blue”) respectfully submits this following Response to Mr. Dan Moore’s summary of his noise complaints, which was e-filed August 15, 2017, in the above-referenced docket (“Summary”). While Big Blue appreciates Mr. Moore’s concerns, Big Blue believes that Mr. Moore’s Summary contains statements that are inaccurate and/or evidence a fundamental misunderstanding of Big Blue’s (1) on-going efforts to address his noise concerns; and (2) the requirements of Big Blue’s Site Permit. As discussed below, Big Blue has been, and continues to, take steps to address Mr. Moore’s concerns and there is no basis to suspend or revoke the Big Blue Site Permit.

### **A. Noise Issues**

Initially, Big Blue disagrees with Mr. Moore’s characterizations of Big Blue’s efforts to address the noise issues set forth in his Summary. Even though Big Blue believes that the Project remains in compliance with applicable noise standards set forth in Minnesota Rules Chapter 7830, Big Blue has taken steps to address the “clickyclack” and “jet engine” noise Mr. Moore cites in his Summary that occurs during certain operational conditions.<sup>1</sup> As Big Blue outlined in its August 4, 2017 response to Commission Staff’s “Unresolved Complaint Review Initiation,” Big Blue has been working diligently with the turbine manufacturer to address these noise issues.

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<sup>1</sup> As Mr. Moore notes, “normal operation noise is fine, and nobody complains about them when they are operating normally.” See Summary at p. 1.

Prior to receipt of Mr. Moore's formal complaint, Big Blue was aware of the noise issues and was working directly with the turbine manufacturer, Gamesa, to prepare and implement a corrective action plan to reduce or eliminate the "clickyclack" and "jet engine" noises. As Big Blue explained in its August 4 response, in May 2017, Big Blue implemented a fix recommended by the turbine manufacturer Gamesa. While this fix was ultimately unsuccessful,<sup>2</sup> Big Blue has continued to work with Gamesa and its new owner Siemens to implement a different corrective action. As Big Blue explained:

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 18th, 2017, with corrective action to begin at that time and continue until each wind turbine is addressed.

As is apparent, Big Blue has not ignored Mr. Moore's concerns and is diligently pursuing remedial efforts to address the noise issues with the turbine manufacturer. Such efforts will continue over the next several months.

Notwithstanding Big Blue's commitment to address the noise issues identified, it is important to emphasize that Big Blue believes that it is meeting the requirements of the noise standards set forth in Minn. R. 7830.0400. While Mr. Moore alleges that the 2013 Noise Study conducted by Big Blue shows that all turbines "are over the 60 db limit,"<sup>3</sup> Mr. Moore misinterprets the conclusion of the study and the requirements of the noise standard. In particular, Mr. Moore cites the "results of actual noise measurements taken at each turbine"<sup>4</sup> in support of his argument that the Big Blue turbines exceed the noise limit. However, the noise level limits are established according to the land use activity at the location of the receiver not the turbine location.<sup>5</sup>

The noise standards specify the maximum allowable noise levels that may not be exceeded at the receptor for more than 10 percent of any hour ("L10") and 50 percent of any hour ("L50"), respectively. Therefore, while the noise levels at the turbines locations may exceed 60 db at times, Big Blue does not believe that the noise levels exceed the 50 db standard at the relevant receptors. As required by Section 4.3 of the Site Permit, the turbines are setback at least 1000 feet from any

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<sup>2</sup> Gamesa indicated that their global and regional investigation of the noise problem determined that "the sound is coming from the hub - main shaft union, slipping and allowing contact of the bolts against the main shaft." Gamesa replaced the bolts with studs gaining a more precise torque to eliminate the intermittent noise.

<sup>3</sup> Summary at p. 5.

<sup>4</sup> *Id.*

<sup>5</sup> See e.g., Minn. R. 7030.0050, Subp. 1 ("The noise area classification is based on the land use **activity at the location of the receiver** and determines the noise standards applicable to that land use activity unless an exception is applied under subpart 3."). Emphasis added.

residential receptor, *e.g.*, occupied residences, ensuring that the noise levels are attenuated by distance.

Nevertheless, Big Blue intends to submit a proposal with the Commission for approval of a post-remediation noise study that Big Blue would conduct to demonstrate on-going compliance with applicable noise standards after Siemens completes the planned remediation efforts this fall. Big Blue believes that its proposal to conduct a post-remediation noise study will confirm the Project's compliance with applicable noise requirements.

## **B. Alleged Permit Violations**

In his Summary, Mr. Moore also alleges that Big Blue has breached its Site Permit such that the Commission should suspend or revoke the Permit. Big Blue does not believe that there is any basis to suspend or revoke the Permit.

First, Mr. Moore states that "I believe a false statement was knowingly made in the application by not disclosing the intent to build the Gamesa 2MW machine with the 87 meter rotor" rather than the 97 meter rotor. Mr. Moore is wrong. The Big Blue turbines installed on site are the Gamesa 2.0 MW turbines with a rotor diameter of 97 meters as specifically authorized in Section 1 of the Big Blue Site Permit.<sup>6</sup> This turbine type was reflected in the (1) Site Plan submitted in accordance with Section 5.1 of the Site Permit filed on October 5, 2011; and (2) "as-built plans and specifications" filed in compliance with Section 8.1 of the Site Permit on February 6, 2013.

Second, Mr. Moore alleges that Big Blue materially violated its permit by not submitting the results of its post construction noise study within 18-months of the Project commercial operation date ("COD"). Mr. Moore is correct that Big Blue did not submit the results of its noise study within 18-months of the Project COD due to an administrative oversight. However, Big Blue did conduct the required study in 2013, but inadvertently failed to file the results until recently when this oversight was identified. Big Blue does not believe that this administrative oversight rises to a level where suspension or revocation is warranted or appropriate.

Finally, Mr. Moore states that the project contacts for complaints still lists the original developer of the Project, Exergy in Boise, Idaho. As the Commission is aware, on November 6, 2012, Big Blue submitted an informational filing to notify the Commission of a change in the upstream ownership of Big Blue Wind Farm, LLC. Big Blue stated that as a result of Exergy Development Group of Idaho, L.L.C.'s default related to the construction and debt-financing of the Big Blue Wind Farm, Big Blue is now owned 100% by an entity owned and controlled by the Fagen family of Granite Falls, Minnesota. Big Blue provided updated contacts for the Project as part of this filing. In addition to providing this update, Big Blue subsequently updated its Project complaint procedures on September 9, 2013. Therefore, contrary to Mr. Moore's statement, Big Blue filed updates to these procedures identifying changes to its complaint procedures.

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<sup>6</sup> On June 20, 2011, Big Blue filed updated constraint maps for the Gamesa 2.0 MW turbines used on site, including noise level mapping based on the turbine type.

**C. Conclusion**

Big Blue regrets that Mr. Moore is not satisfied with the actions Big Blue is taking to address his noise complaints. Big Blue is hopeful that its commitment to address the noise issues that gave rise to Mr. Moore's complaint and conduct another post-remediation noise study provides Mr. Moore with some comfort that Big Blue takes his concerns seriously. Ultimately, Big Blue values a positive relationship in the community and looks forward to working with Mr. Moore towards this end.

Thank you for your attention to this filing. Please do not hesitate to contact me with any questions or concerns.

Sincerely,



Kate Carlton  
Corporate Counsel  
BIG BLUE WIND FARM, LLC

**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

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In the Matter of Big Blue Wind, LLC	)	MPUC Docket No. IP-66851/WS-10-1238
36 Megawatt Large Wind Energy Conversion	)	
System in Faribault County, Minnesota	)	<b>CERTIFICATE OF SERVICE</b>
	)	
	)	

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The undersigned hereby certifies that true and correct copies of **Big Blue Wind Farm, LLC's Response to Mr. Dan Moore's Noise Complaints** were served on this day by e-filing/e-serving to the following:

NAME	EMAIL	SERVICE
Julia Anderson	<a href="mailto:julia.anderson@ag.state.mn.us">julia.anderson@ag.state.mn.us</a>	Electronic
Randy Dooley	<a href="mailto:rdooley@dooleypetro.com">rdooley@dooleypetro.com</a>	Electronic
Sharon Ferguson	<a href="mailto:sharon.ferguson@state.mn.us">sharon.ferguson@state.mn.us</a>	Electronic
Stacy Kotch	<a href="mailto:stacy.kotch@state.mn.us">stacy.kotch@state.mn.us</a>	Electronic
Brian Meloy	<a href="mailto:brian.meloy@stinson.com">brian.meloy@stinson.com</a>	Electronic
Daniel P. Wolf	<a href="mailto:dan.wolf@state.mn.us">dan.wolf@state.mn.us</a>	Electronic

Dated this 29<sup>th</sup> day of August, 2017

*/s/ Susan A. Hartinger*

Susan A. Hartinger