

December 17, 2025

Ms. Sasha Bergman  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
Saint Paul, MN 55101-2147

Re: In the Matter of the Application of Big Bend Wind, LLC for a Large Wind Energy Conversion System Site Permit for the up to 311.1 MW Big Bend Wind Project in Cottonwood and Watonwan Counties, Minnesota  
MPUC Docket No. IP-7013/WS-19-619

Dear Ms. Bergman:

I respectfully submit these reply comments in response to those submitted by the Energy Infrastructure Permitting (EIP) staff during the initial comment period ending on December 10, 2025, regarding Big Bend Wind's Site Permit Amendment Request. There are two issues I'd like to address from what the EIP staff submitted.

1) Noise assessment for the uprated GE-158 turbine

EIP Staff notes that the noise assessment for the uprated GE-158 turbine model is the same as the noise assessment for the GE-158 in the 2021 Amended SPA. The increase of nameplate capacity results in no additional environmental impacts and would have been approved by the Commission at the time of issuance of the original site permit.

This is not necessarily the case. When the initial site permit was issued, all three turbine models were projected to meet the noise guidance that was offered by EIP (at the time called DOC-EERA). The GE turbine in particular was projected to have a maximum dB(A) of 45 at participating residences. This same guidance was included again in the 2021 Amended SPA. And finally, the 2025 SPA Request affirmed this guidance by stating "Big Bend Wind has incorporated the 2019 LWECS Application Guidance and sited turbines so that turbine-only noise is < 45 dB(A) at non-participating residences and < 47 dB(A) at participating residences." However, the current projections show that the GE model is now outside of those guidelines. Many homes now have a maximum projected sound level of 47 dB(A). While a 1 dB(A) variation MIGHT be insignificant, the 2025 SPA request is making a false claim of meeting guidelines that were being met when the original site permit was approved. Are these newer projections related to moving to this the uprated turbine? I don't know, because most of the data regarding turbine sound and the inputs used to project the resulting noise at residences is hidden from those of us who will be harmed. It should be noted, however, that projected noise levels for the V162 turbine have decreased while the projected noise levels for the GE model have gone up.

## 2) Post-construction noise evaluation

EIP is supporting technical changes regarding consultation for how post-construction noise is evaluated. For those of us who don't trust the accuracy of the noise predictions, allowing the permittee to develop the post-construction noise study methodology and being given 18 months to complete it is absurd. As seen with other wind farm cases, when noise levels are exceeded homeowners are given little or no opportunity for recourse. The protocols for studying post-construction noise should already be written, apart from the permittee, in a way that protects area homeowners first. Verification after construction should be performed by an unrelated third party in a far timelier manner at the expense of the permittee. If projected sounds are exceeded, very specific actions should be mandated.

## 3) The underlying issue – noise projections for wind farms are consistently underestimated

Predicting wind farm noise is challenging because sound levels depend heavily on real atmospheric conditions, especially at night when temperature inversions and wind shear can cause sound to travel farther and remain louder than models assume. Common prediction methods using ISO 9613-2, which is being used in this case, use simplified weather assumptions that often underestimate actual noise, particularly under nighttime conditions. This is caused at least in part because ISO 9613-2 was originally designed for predicting sound levels from smaller, surface-level sources – not wind turbines with a height of 100-200 meters.

For instance, post-construction monitoring for the Freeborn Wind project found that the highest measured turbine-only sound levels were 2 to 5 dB higher than the models projected them to be. Similarly bad predictions have been experienced elsewhere, but for some reason this post-construction data is generally not made available for public viewing.

There are other methods available for projecting sound levels that have been shown to be more accurate under most circumstances, such as Nord2000. However, at least here in Minnesota, there is very little incentive for a permittee to be concerned about accuracy. In the Freeborn case, even with the inaccurate projections, the wind farm continues to operate without any substantial penalties.

## 4) Conclusion

For the reasons stated above, I respectfully request that the Commission deny this request. If you do choose to approve, then I request that you include real and costly consequences if the noise projections are shown to be underestimated with testing performed by an unrelated third party.

Sincerely,

Brad Hutchison