

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Public Service Commission
Energy Conversion Facility Siting Criteria
Rulemaking**

Case No. PU-19-290

PUBLIC SERVICE COMMISSION STAFF TESTIMONY

September 19, 2019

My name is Jerry Lein. I am a Public Utility Analyst in the Public Utilities Division of the Public Service Commission. The purpose of my testimony is to describe proposed changes to ND Admin. Code Chapter 69-06-08 administrative rules pertaining to Siting Criteria.

The Commission has been tasked with providing avoidance and exclusion areas to guide the siting suitability and designation process. One of the proposed changes reduces wind turbine impacts on local residences by lowering the acceptable turbine noise level from 50 dBA to 45 dBA at a distance of 100 feet from an occupied residence under subsection 69-06-08-01(4) for new projects.

The Commission is proposing this rule change due to the concerns that landowners and expert testimony that have presented to the Commission regarding noise. This change will help protect a nonparticipating landowner's enjoyment of his or her residence from noise produced by a wind facility from which they are receiving no economic benefit.

In the past few wind siting cases, the Commission has received expert testimony that has expressed concerns that although the facilities will meet the

regulatory noise requirements, a project designed consistent with community welfare and acceptance of the project should have a lower dba, particularly for non-participants. Some of the siting facilities had non-participating landowners being subject to the upper end of the regulatory sound level (e.g. 47 to 49.3 dBA in Russo Wind Project).¹ By providing this in rules, the Company can accommodate these changes earlier in the design and modeling process and also reduces the possibility of complaints and community disturbance.

In some of the expert testimony, it was noted that studies and field surveys suggest that the “acceptable noise from a project and what is unacceptable is a project sound level that falls in a gray area ranging from about 35 to 45 dBA.”² Below that level the project is so quiet that there is likely to be no reaction. Some studies have found that it is advisable to maintain a mean sound study of 40 dBA, but that a mean level of up to 45 dBA may be acceptable as long as the number of homes subject to this noise is relatively small. It may be worth noting that a project sound level at even 40 dBA does not mean that the project would be inaudible, just not likely to be objectionable by the vast majority of neighbors.

The Commission believes that the 45 dBA is an appropriate level to protect consumers from exposure to a noise nuisance while not standing in the way of economic development of projects. This sound level has also been used

¹ PU-19-23, Exhibit 43.

² PU-18-351, Late-File Exhibit 33.

in projects that have been developed in South Dakota as well.³ In one case, the level was set at 40 dBa for non-participating landowners, and 45 for participating unless they signed a waiver.⁴ It is also worth noting that the owner of the occupied residence or the community building may still waive the sound level avoidance area criteria. In many projects, landowners that are participating in or receiving compensation from the project are willing to provide a waiver of the noise avoidance criteria.

Additionally, at the request of Minot Air Force Base, a new subsection 69-06-08-01(1)(g) is being proposed to define a new exclusion area as areas within thirty feet of a direct line between ICBM launch or launch control facilities to avoid microwave interference. Note the word “or” proposed above needs to be changed to “and” to clarify the line is between launch *and* launch control facilities.

That concludes my Testimony.

Thank you

³ Crocker Wind Farm, LLC, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry. Dakota Range I, LLC and Dakota Range II, LLC, Final Decision and Order Granting Permit To Construct Wind Energy Facility; Notice of Entry.

⁴ Prevailing Wind Park, LLC, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry.