



July 1, 2021

**VIA ELECTRONIC MAIL**

Jonathan Evans, Presiding Officer  
New Hampshire Site Evaluation Committee  
21 Fruit Street, Suite 10  
Concord, New Hampshire 03301

**Re: Docket No. 2021-02  
Investigation of Complaints  
Regarding Antrim Wind Energy Facility  
Comment of Lisa Linowes**

Dear Mr. Evans:

The purpose of this letter is to provide public comment on Subcommittee Charge 1, as reflected in the Subcommittee's Updated Antrim Wind Energy Facility Investigative Plan, dated May 21, 2021. At a Subcommittee meeting dated June 17, 2021, the Subcommittee determined that comments on the Subcommittee Charge 1 will be accepted until 5:00 p.m. on July 1, 2021. I submit my comments for the Subcommittee's consideration as follows. Also find attached responsive comments prepared by Rand Acoustics that address several of the technical questions raised by the Subcommittee and Counsel for the Public.

There has been extensive discussion as to what the appropriate interval for the determination of noise exceedances is or should be. However, as has been stated frequently in prior submittals, Rule 301.18(e)(6) establishes a clear standard as to that interval, and that interval is 0.125 seconds. To determine otherwise effectively alters a previously established rule of the Commission. See Attitash Mountain Serv. Co. v. Schuch, 135 N.H. 427, 429 (1992) ("the law of this State is well settled that an administrative agency must follow its own rules and regulations").

When interpreting agency rules, where possible, it is necessary to ascribe the plain and ordinary meanings to the words used. Vector Mktg. Corp. v. N.H. Dep't of Revenue Admin., 156 N.H. 781, 783 (2008). The Committee must construe rules in their entirety, rather than in segments. *Id.* Further, the administrative intent of the Committee is important where that intent can be ascertained. *Id.* The Committee's interpretation must be consistent with the language of the regulation and with the purpose which the regulation is intended to serve. *Id.*

Here, Rule 301.14 (f)(2) establishes a not-to-exceed standard of “45 dBA or 5 dBA above background levels, measured at the L-90 sound level, between the hours of 8:00 a.m. and 8:00 p.m. each day, and the greater of 40 dBA or 5 dBA above background levels, measured at the L-90 standard level, at all other times during each day.” Rule 301.18(e)(6) clearly states that “[a]ll sound measurements during post-construction monitoring shall be taken at 0.125-second intervals measuring both fast response and Leq metrics.”

Rule Site 301.14’s not-to-exceed standard is clearly intended to account for and prevent adverse impacts associated with the sound modulation created by wind turbines. It is this modulation, this persistent and rapid variation of sound, that is, to use the phrase of the Committee’s own expert, a “source of annoyance.” See Transcript of November 23, 2020, Application of Antrim Wind Energy, LLC for a Certificate of Site and Facility, Docket No. 2015-02, at 56 (testimony of Mr. Tocci). Rule 301.18(e)(6) is the only point in the Committee’s rule at which an interval is referenced, and Rule 301.18(e)(6) establishes a short interval to ensure that the rapid (and large) changes in amplitude associated with wind turbines can be identified and prevented. To allow, as Antrim Wind suggests, for an averaging of data over a prolonged period (10-minute or 1-hour) is to ignore the recognized impacts associated with that sound modulation, such that the exceedances that were intended to be prevented will be buried through averaging using an arbitrarily established interval. As such, reviewing Rule 301.14 in a manner consistent with the purpose for which it was enacted, the Committee must find that the interval period for the determination of exceedances is 0.125 seconds.

Both AWE and Counsel for the Public have argued that the 0.125-second interval set forth in Rule 301.18(e)(6) represents the *fast* response setting for the sound meter. This argument requires that we ignore a key element of the rule that is included by the drafters, namely reference to “Leq.” If the drafters intended for the rule to merely inform the meter operator to use the fast setting there would be no justification for “Leq” to be included in the language. The rule was written to define the fast response setting *and* the time interval for the equivalent sound levels cited in Rule 301.14(f)(2)(a). Counsel for the Public’s added complaint that using 1/8<sup>th</sup> second as a compliance interval requires averaging of a single data point suggests a fundamental misunderstanding of how sound meters work. Modern sound meters capture digital sound values at a rate that is much faster than the state’s 0.125 second interval and easily compute the Leq based on thousands of digital data values. See Letter of Robert Rand dated July 1, 2021 (*Measure Leq Using 0.125s Interval*).

AWE and Counsel for the Public further argue that the 0.125-second interval is unreasonable for compliance purposes but cite different reasons. AWE’s primary argument is that Leq 0.125 second (or essentially Lmax) is generally not used in wind turbine noise standards. This is false. Application of a short interval is well established in limiting wind turbine noise in the United States and can be found in numerous jurisdictions. In fact, *AWE’s own agreement* signed with the Town of Antrim and included in the facility’s Certificate uses an absolute “not to exceed” standard. In fact, in Tuscola Wind III, LLC v. Almer Charter Township et al., 2017 U.S. Dist. LEXIS 182278 \* 61 (E.D. Mich. 2017) a federal court ruled that the Lmax standard for wind turbine noise is reasonable over the arguments of a turbine operator.

Counsel for the Public appears to also argue that the 0.125-second standard set forth in Rule 301.18(g) is limited to the determination of the L-90 measurement set forth in Rule 301.14(f)(2). This assertion, however, confuses the application of the L-90 measurement. L90 is nothing more than a statistical value that represents the sound level exceeded 90 percent of the time. See Letter of Robert Rand dated July 1, 2021 (*Measuring L90 Using 1/8 Second Interval Measurements*); see also Tuscola Wind III, LLC v. Almer Charter Township et al., 2017 U.S. Dist. LEXIS 182278 at \*4 (E.D. Mich. 2017). The L-90 value is merely intended to establish the baseline for the background sound. Rule 301.14(f)(2) says as much when it states that noise shall not exceed “45 dBA or 5 dBA above background levels, measured at the L-90 sound level.” The reference to the L-90 sound level is only a reference to how to determine the background sound levels for determination of a baseline, not a sound interval for the determination of an exceedance. Further, there is no suggestion in the Committee’s Rules or otherwise that the 0.125-second interval in Rule 301.18(e)(6) is to be used to establish the L-90 baseline. Again, to suggest otherwise is to ignore and write-out of the Committee’s rules any meaningful consideration of modulated sound, and, thereby, ignore the noise impacts associated with turbines.

Both AWE and Counsel for the Public have also asserted that to adopt the 0.125-second interval will effectively mean that the SEC approved a project under standards that cannot be met. This is not so. The SEC adopted the rules in 2015 independent of any application before it. The then-seated SEC members approved the Antrim Wind project based on assurances by AWE that the predictive sound modeling showed no exceedances associated with the Project. The SEC’s adoption of that predictive modeling does not mean that the model was infallible or may otherwise be proven inaccurate once the Project was completed and operational. Indeed, various abutters argued there were flaws in that predictive modeling. That the predictive modeling has now been shown to be inaccurate or flawed is not a basis for adopting an interpretation of the SEC’s rules that will somehow sanction that flawed, predictive modeling. The Project must satisfy the Rule; the Rule does not have to be altered or interpreted in a certain way to satisfy the Project. The 0.125-second interval for the determination of compliance is an interval that has been adopted in other jurisdictions and is a workable interval. Tuscola Wind III, 2017 U.S. Dist. LEXIS 182278 at \*61. This interval comports with the plain language of the SEC’s rules, and the Subcommittee should not deviate from that established interval now.

Further, with regard to predictive modeling, AWE expert, Robert O’Neal, has claimed to the Subcommittee that the “1-hour standard showed good agreement with the pre-construction modeling, which is what we are trying to get here.” To be clear, the purpose of post-construction monitoring is not to validate AWE’s prediction model. Rather, modeling is a tool for the applicant to demonstrate, before a permit is issued, that a facility will operate in compliance with the noise standard. After that the model is no longer relevant to the Committee. Rule 301.18(c)(3) and (4) require modelers to apply all necessary corrections to ensure the resulting prediction conforms to the Committee’s sound standard. A model based on long-term averages will predict quieter operating noise levels than one based on Lmax or Leq 0.125 seconds.

Even if this Subcommittee believes that Rule 301.18(e)(6) does not establish a clear sound interval for the determination of exceedances, a position with which I strongly object, prior decisions by the Committee do not support the intervals put forth by both AWE and Counsel for

the Public. Indeed, if the Subcommittee deviates from the 0.125-second interval, the Subcommittee should not adopt an interval longer than three minutes during any sixty-minute period of the day. Indeed, in both the Groton Wind and the Lempster Wind decisions, the Applicant and the host communities agreed to a standard that sound pressure not exceed established thresholds for more than a total of three minutes during any sixty minute period of the day. Decision Granting Certificate of Site and Facility with Conditions, Application of Groton Wind, LLC for a Certificate of Site and Facility for a 4 MW Wind Turbine Facility in Groton, Grafton County, New Hampshire, Docket No. 2010-01 at \*83, 88-89 (Decided May 6, 2011); Decision Issuing Certificate of Site and Facility with Conditions, Application of Lempster Wind, LLC, Docket No. 2006-01 at \*48 (Decided June 28, 2007). The Committee determined in both cases that such a standard allowed for those Projects to satisfy “public health and safety” standard. Id.

Notwithstanding the prior decisions of the Committee, which predate the adoption of the 0.125-second interval, Rule 301.18(e)(6) is sufficiently clear that the Committee should use a 0.125-second interval for the determination of noise exceedances. Deviation from, and the adoption of any standard contrary to this Rule effectively amounts to a rulemaking, which must follow Rule Site 204 and RSA chapter 541-A.

Thank you in advance for your careful consideration of this matter. I look forward to the Subcommittee’s consideration and discussion of this matter during the public hearings to come.

Very Truly Yours,

A handwritten signature in black ink, appearing to read 'Lisa Linowes', with a long horizontal flourish extending to the right.

Lisa Linowes