

BY ELECTRONIC MAIL

November 17, 2015

Chairman Martin Honigberg
New Hampshire Site Evaluation Committee
21 South Fruit Street, Suite 10
Concord, NH 03301

Re: NH Site Evaluation Committee Rulemaking, Docket No. 2014-04

Dear Chairman Honigberg and Committee Members:

EDP Renewables' ("EDPR") late-filed comments dated November 12, 2015 include several misleading and unsubstantiated claims that compel us to respond.

SHADOW FLICKER

- A. EDPR's complaint that an 8 hour/year shadow flicker limit will hinder future wind development is not supported by the record.

Two of the three¹ operating wind projects in New Hampshire, Groton Wind and Granite Reliable Power, predicted their projects would produce shadow flicker at residences well below the 8 hour limit. The lack of complaints is not proof that a 30 hour per year limit is acceptable. The more credible conclusion is that the projects likely met the limits promised in their application.

Iberdrola's Wild Meadows application, now withdrawn, predicted that only 22 non-participating property owners would experience any shadow flicker. Of that number, just 4 would experience flicker at a level over 8 hours per year with the worst case being 10 hours 46 minutes. The proposed Antrim Wind project modeled shadow flicker at 155 discreet points and found that the 8 hour limit would be met at 150 locations. At the 5 locations where shadow flicker might exceed 8 hours, the largest impact was 10 hours and 10 minutes per year.

In both the Wild Meadows and Antrim applications, most locations would experience no shadow flicker in a year. We are confident that each applicant, if required by the rules, could implement adjustments to their respective project layouts and/or operation² to meet the 8 hour limit.

- B. EDPR's reference to New Hampshire's model ordinance is not relevant. The 2008 ordinance was not developed or vetted through a public process. It serves only as an aid for communities drafting local regulations and carries no statutory weight in the state. But more importantly, the provisions in the model apply to small wind systems with a maximum output of 0.1 megawatts. Such smaller systems have shorter, stouter blade profiles that, at best, *might* cast shadows up to 700 feet depending on

¹ Data for the Lempster project is limited but according to the information on the SEC website, most areas would experience well under 10 hours of shadow flicker and many locations would see no shadow flicker.

² Mason County MI has had good success with shadow flicker detection systems that sense the occurrence of shadow flicker and temporarily curtail turbine operation until the sun moves in the sky. This technology has enabled the county to reduce the instance of shadow flicker to 0 hr/yr.

location. The blades on today's more towering, megawatt-scale turbines produce shadows that have been recorded more than a mile away.

- C. *The eight-hour standard for shadow flicker is neither unreasonable nor unusual.* Numerous jurisdictions around the country have adopted similar, or more restrictive shadow flicker standards including Mason County, MI (0 hr/yr), Hutchinson, MN (0 hr/yr at occupied residence), Newport RI (0 hr/yr), Caratunk ME (no more than 1 hr/yr), Holland, WI (10 hr/yr), Iroquois County, IL (0 hr/yr), Logan Township, PA (0 hr/yr at any occupied building), and Carteret County, NC (0 hr/yr on or in any roadway or occupied property, unless approved by the Planning Commission).³ Internationally, Germany limits shadow flicker to 8 hr/yr and Denmark limits shadow flicker to 10 hr/yr.
- D. *The timing of the rule change was fair.* EDPR seems to suggest that the Committee pulled a “fast one” on the stakeholders by changing the shadow flicker standard on the last day of deliberations. This is an unfair, and incorrect characterization of what transpired. Shadow flicker was raised at each of the public hearings held by the Committee, and it was primary topic at the June 29 technical session. EDPR was present at each of these events and was well aware changes to the rules could happen up to the end of the deliberative process.

Noise

As with Shadow flicker, EDPR's objection to the noise standard is unfounded. The 45 dB(A) daytime, 40 dB(A) nighttime first appeared in the Groton Wind decision and was later imposed as a condition in the Antrim Wind decision (Docket 2010-12). During the Antrim Wind adjudicative proceeding, there was considerable testimony by three noise experts including the witness for Antrim Wind who stated under oath that the 45 dB(A) limit is more common.⁴

In addition, Iberdrola touted in its Wild Meadows application that the project would operate at, or under the 40 dB(A) limit. Antrim Wind LLC has presented to the residents of Antrim as well as the SEC that its newly configured project will also operate at the 40 dB(A) limit.

Conclusion

The new rules, if adopted, will not stop wind development in the state but they will result in safer, better designed projects. Nonetheless, if a developer is unable to work within the rules, and his/her proposed project is important to the State, Site 302.05 allows for the Committee to waive the provisions.

Thank you for the opportunity to provide these comments.

Respectfully,

Lori Lerner
On behalf of New Hampshire Wind Watch

cc: Committee Members, Joint Legislative Committee on Administrative Rules

³ This list is not exhaustive. The sources of these ordinances can be made available if the Committee wishes to validate this information.

⁴ Docket 2010-12, afternoon session, November 1, 2012 at page 191.