

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:

On behalf of New Hampshire Wind Watch (NHWW), I would like to thank you for the opportunity to speak today.

New Hampshire Wind Watch submitted a letter to your committee yesterday containing several comments, along with 2 videos I hope everyone had an opportunity to watch. The videos demonstrate the strobing effect of a wind turbine both inside the home and outside. If you haven't watched the videos, I'd encourage you to do so.

Much of what I have to say today was provided to you in a letter from NHWindWatch and Wind Action Group on August 26<sup>th</sup>, although it bears repeating.

In reading the April 15, 2015 transcript, it is evident the Committee did not fully grasp the industry jargon cited in the SB-99 stakeholder document for shadow flicker. These terms, including "astronomic worst case scenario"<sup>1</sup> are essential for understanding how shadow flicker modeling is conducted and the parameters for fully assessing the duration of impact prior to a project being constructed. This term seems to have been misconstrued by the Committee to suggest it represents 'the most conservative scenario', while it is anything but conservative. It was stated that it reached stakeholder consensus, which is absolutely not the case.

The Committee appropriately acknowledged its limited experience with the topic and asked that shadow flicker be discussed at the June 29 technical session, which it was, in great detail, including a comprehensive explanation of how Mason County, Michigan dealt with significant shadow flicker issues at residences located more than a mile from the turbines. You will hear more about this as a letter from the Mason County Zoning Administrator is read to the Committee.

Our recommendation submitted back in March contained the following information, which I would like to re-iterate:

- 1) **Mason County, Michigan, USA:** substantial shadow flicker impacts at distances up to 6,000 feet. County ordinance limited shadow flicker to 10 hours per year, which was recently amended to ZERO hours.
- 2) **German Standard:** A maximum of 8 hours/year actual amounts of shadow flicker nationwide.

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<sup>1</sup> The "worst case" is the theoretical maximum number of hours that shadow flicker will be produced at a location assuming: 1. the sun is shining all day from sunrise to sunset (no cloud cover), 2. the rotor-plane of the turbine is always perpendicular to the sun; and 3. the turbine is always operating. Upon determining the worst case scenario, average meteorological conditions for the project site, including the number of expected hours of cloud cover per year, are applied in order to model a more realistic estimate for the number of hours of flicker

**3) Danish Standard:** Not exceed 10 hours per year on neighboring houses. If the shadow limit is exceeded the wind turbine owner may alternatively be required to shut down the wind turbine in critical periods.

As previously submitted, we recommend a shadow flicker standard **not to exceed 8 hours per year** although **it would be reasonable to set a standard such as Mason County and not allow shadow flicker at all, given that technology exists to eliminate it.**

It is our sincere hope the Committee will revisit the health and safety issues for a more informed discussion. If that is not possible, we recommend you forego any standards for shadow flicker until such time that the Committee is better equipped to explore these topics. If you do move forward with the draft Rule standard, we urge you to include the following statement in the Rules: **“Reduced number of hours of shadow flicker may be imposed by the Committee if supported by the evidence presented.”** Having no standards would be preferred over adopting standards that are not fully considered.

Thank you again the opportunity to be part of this important process.

Respectfully,

Mark Watson  
Groton, NH