



95 Tesla Lane East Dorset, VT 05253

Tel: 802-779-8118 www.Starwindturbines.com

Ms. Judith Whitney, Clerk
Vermont Public Service Board
112 State Street
Montpelier, VT 05620-2701

May 11, 2017

Re: Small Wind Ordinance rule 5.700

Dear Ms. Whitney,

I want to thank the Public Service Board for the opportunity to make a presentation on May 4, 2017. The general message of my presentation was to show that small wind turbines do not produce the same adverse sound characteristics as large wind turbines and, thus, should be given a more reasonable specification. Unlike large wind turbines, there has been almost zero evidence of small wind turbines making adverse sound or noise. There is support from the public for small wind and its capability with respect to individuals and small groups to make their own electricity.

SMALL WIND TURBINES ARE NOT LARGE WIND TURBINES.

- They make less noise than large wind turbines.
- They do not make the same low frequency and infrasound as large turbines.
- They are on shorter towers and have smaller diameters.
- The sound does not travel as far as large wind turbines.
- They will be located closer to the neighboring residence and have a low visual impact.
- Small wind turbines make their maximum noise less than 2% of the time, or less than 20 hrs./year.

The effect of the new sound ordinance is becoming increasingly punitive and onerous and is placing an undue burden on small turbines. My recommendation is that a different specification needs to be made for small wind turbines. I would propose that a distinction be made between large and small wind, perhaps below 150kW. Accordingly, I respectfully make the following suggestions:

1. I propose a 42-45 dBA night and day limit to be acceptable for small wind turbines under 150 kW. Small wind turbines will be installed in the same wind environment as residences and therefore will

produce maximum sound at the same time the background noise is at its highest level. Neighbors will go inside during a wind storm and will most likely shut their windows. From a small wind turbine system under 150kW, the attenuation of being indoors during a wind storm and during the winter is very adequate to reduce the sound below 30dBA inside.

2. If the sound modeling and compliance shows that the turbine meets the required maximum dBA, then the setback distances should be 1.1 times the height of the tower. There are many long, slender properties in Vermont that would be automatically denied a CPG permit because of the 2 times the height of the blade requirement in Rule 5.100. If the small turbine meets the sound standard per modeling software analysis, discussion of visual impact and appropriate setbacks can be discussed during the CPG process on a case by case basis.

It is the small wind turbine customer that is being hurt the most in the proposed sound ordinance. In my opinion, small customers are being discouraged by the increased cost and time to acquire a CPG permit. Perhaps, in the future, the Board can create a regulation that not only protects the public from adverse sound but encourages and makes fast-track deployment possible for small wind turbines. This could potentially evolve to the point where a list of pre-approved wind turbines that are not controversial could be developed and would allow deployment without such difficulty, expense and delay.

3. Small wind turbines under 150kW should not be required to perform compliance testing or post construction monitoring. Unlike large wind turbines, there has been no evidence and no public display of discontent about small wind turbines presented, at either the sound workshops or the public meetings. There has been no case of small wind turbines exceeding an ordinance, which would tend to prove that small wind turbines cannot be properly sited using good sound modeling analysis alone. In other words, there is no reason to believe good sound modeling analysis will not work for small turbines. There was zero evidence at the workshop that showed any small wind turbines producing adverse sound to the public. For less than 150kW small turbine systems, compliance testing and monitoring should be discussed on a case by case basis during the CPG process.

Simply put, small wind turbines are good for the local economy of Vermont, and there has been no showing that any small wind turbines produce adverse sound with regard to the public. They are designed for private ownership and fit in with the Vermont landowner and farmer to make their own energy and achieve the clean energy goals of the state. Small wind turbines should be encouraged and more flexible ways should be found to promote their deployment.

Because the sound coming from small wind turbine is a very low risk to the public, I would ask the Board to take these suggestions or, in the alternative, find another way to set sound standards to protect the public without making the deployment of small wind unfeasible.

Sincerely,

A handwritten signature in black ink that reads "Jason A. Day". The signature is written in a cursive style with a long horizontal line extending to the right from the end of the name.

Jason A. Day