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SMALL TURBINE COLUMN:

Epilepsy and Other Such Ruses

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During a recent discussion about a building permit for a small wind turbine, the question came up about wind turbines causing epileptic seizures in sensitive people. It seems that several anti-wind-farm Web sites have repeatedly made such accusations about utility-scale wind turbines. And of course, the concern has trickled down to include residential wind generators.

We all remember the scene from "The Andromeda Strain" where one of the leading characters goes into an epileptic seizure while staring at a flashing light in her laboratory – it was a pretty scary image. A valid question raised is, Could wind turbines trigger such seizures with the shadows they might cast? Let's take a look at how wind turbines might possibly cause epilepsy.

One of the best explanations of how this might happen is presented in testimony provided by Arne Nielsen of Windridge Power Partners, LLC, to the State Of Washington Energy Facility Site Evaluation Council on the Wild Horse Wind Power Project. In his testimony, Nielsen explained that, "photosensitive epilepsy is a type of epilepsy triggered from the flickering or flashing of light in certain people suffering from that kind of epilepsy." The theory is that someone observing shadow flicker from a wind turbine could be stricken by an epileptic seizure.

In the same testimony, Nielsen was asked whether, to the best of his knowledge, there were any documented human or health impacts associated with shadow flicker from wind turbines." Nielsen's response was an unequivocal "no." Nielsen also made reference to the Epilepsy Foundation as a source of information. I extensively searched the Epilepsy Foundation's Web site for any reference to wind turbines and epilepsy, and found none.

In another document, the Draft Programmatic Environmental Impact Statement on Wind Energy Development on Bureau of Land Management-Administered Lands in the Western United States, AWEA commented that, "there are no documented human or animal health impacts associated with shadow flicker." These two public documents should lay to rest any questions about wind turbines causing epilepsy, including residential wind generators.

The issue logically shifts to where does the persistent speculation about wind turbines causing epilepsy come from, as it is repeatedly raised in zoning hearings and on anti-wind farm Web sites. Questions about potential health or safety impacts of wind turbines are fair game at zoning hearings. Such hearings are an opportunity for the local community to examine any new structure or development proposed for their locale. And since residential wind turbines, or possibly a proposed wind farm, may be new to the area and neighbors have no experience with them, it is logical for the neighbors to want to know everything they can about the proposed wind turbine or wind farm.

In almost all cases, simple fact sheets or reports, such as the two cited above, are quite adequate in allaying any fears that the neighbors might have. In the case of wind turbines causing epilepsy, for example, a statement that there have been no documented, or, for that matter, reported cases of such an occurrence should be sufficient for the inquiring public. A simple Web search by anyone with Internet access would confirm this to even the most skeptical of neighbors. Well, any reasonable neighbor who is truly concerned about the specific health or safety issue at hand.

However, zoning hearings draw another group of folks concerned about a proposed wind turbine or wind farm. This is the category known as the NIMBYs, an acronym that stands for “not in my back yard.” These are folks that oppose a project, period, and are not at all interested in information, answers, data, reports, facts, testimony, or anything that counters the position they have staked out publicly.

Their tactics are interesting, and not unlike a three-year-old who will not take “no” for an answer. Anyone who has ever tried parenting understands that the child’s learned behavior is to repeat, repeat, and repeat again until he or she wears down the resisting parent and gets what he or she wants. NIMBYs have continuously used such tactics in their attempts to stop a wind turbine from being permitted. Their goal is obfuscation and delay. If they can sufficiently muddle an issue in the public’s mind, or better yet the minds of zoning officials, they can delay the construction of a wind turbine until the applicant gives up in frustration and simply goes away. This has proven, all too often, to be a successful tactic.

If there are no confirmed, let alone reported or documented, cases of wind turbines triggering epileptic seizures, why is the accusation repeatedly resurrected? Any logical person would immediately ask why such a phenomenon as shadow flicker causing epilepsy is just restricted to wind turbines. Why don’t, for example, flashing directional signals on vehicles cause epilepsy? Or driving in a car down a tree-lined road? Both of these are far more common than wind turbines, and we, as a society, have not deemed them public health or safety threats. The answer is that they aren’t, but directional signals or tree lined roads are not the target of the NIMBYs. Wind turbines are.

Such innuendo by NIMBYs about things like epilepsy is deliberately misleading. Opponents cannot cite even one documented case of epilepsy triggered by a wind turbine. However, it intentionally creates doubt in the minds of other neighbors and zoning authorities, and furthers the objective: obfuscation and delay.

But is this a legitimate thing to do at a zoning hearing, and should it be tolerated at such hearings? If opponents raise epilepsy as a public health or safety concern yet cannot cite any legitimate cases of such a thing happening outside of speculation or innuendo, and repeatedly ignore documented and accepted facts, then the accusation should be labeled for what it is: fear mongering.

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[Editors Note: The opinions expressed in this column are those of the author and may not reflect those of AWEA staff or board.]