

To the Editor:

First Wind of Newton, Mass is planning to erect forty 389 ft tall wind turbines on the Rollins ridges in Burlington, Lincoln, Lee and Winn. You may have seen some of the parts passing through on their way to a staging area in Chester. They are really, really, large.

There are concerns about whether the project makes sense, given the poor wind speed rating of the site. There are concerns about the federal, state and local subsidies of such projects. There are concerns about how the power will be distributed, given our inadequate electrical grid. There are concerns about the impact on wildlife and the environment. And there are certainly concerns about the visual impact these monsters will have on our beautiful and sparsely populated rural area.

But what about the noise? Is it just annoying, or is it actually harmful? Does it affect only those in the shadow of the turbines, or does it have a wider reach? How loud is too loud? How close is too close? Fortunately, a number of acoustic experts have written in detail regarding these issues.

Last year, George Kamperman and Richard James prepared "The [47 page] 'How To' Guide to Siting Wind Turbines to prevent Health Risks from Sound". Also last year, our eastern neighbor, the Province of New Brunswick, Canada, released a 147 page report, "Model Wind Turbine Provisions and Best Practices for New Brunswick Municipalities, Rural Communities and Unincorporated Areas". And, Dr. Nina Pierpont has researched and written extensively on the topic of "Wind Turbine Syndrome". This information provides us with the answers.

Germany, with 40% of Europe's wind power, and 24% of the world's, is still leading the global wind movement. What have they learned? For starters, they have set a nighttime noise limit of 35 dBA for residential and sensitive areas.

The World Health Organization (WHO) recommends that sound levels during nighttime and late evening hours be less than 30 dBA during sleeping periods to protect children's health. They noted that a child's autonomic nervous system is 10 to 15 dB more sensitive to noise than an adult's. For sounds that contain a strong low frequency component, which is typical of wind turbines, they say that the limits may need to be even lower than 30 dBA to avoid health risks. Further, they recommend that the criteria use dBC frequency weighting instead of dBA for sources with low frequency content.

And, the International Standards Organization (ISO) recommends 25 dBA as the maximum night-time limit for rural communities. For reference, the sound level in a wilderness area is about 20 dBA

In spite of all this information, the Maine Department of Environmental Protection (DEP) allowed First Wind a nighttime noise level of 45 dBA for the Rollins project. And if we repeat the Mars Hill experience, First Wind will not meet this requirement, and the DEP will subsequently grant them a waiver of 5 dBA.

I confess, it's easy to get lost in these numbers. What do they all mean? The decibel (dB) is a logarithmic measure of power ratios. A change in power ratio by a factor of 10 is a 10 dB change. A change in power ratio by a factor of two is approximately a 3 dB change. In short, the Maine DEP is allowing First Wind to expose residents to ten times the noise allowed in Germany, 32 times the noise recommended by the WHO, and 100 times the noise recommended by the ISO. And, if First Wind is given a 5 dB waiver, you can triple these numbers.

What is the effect of this noise - and this type of low frequency noise - on human health? In Lincoln Township, Wisconsin, in 2001, two years after installation, 44% of residents 800 ft to $\frac{1}{4}$ mile from the turbines found noise to be a problem in their households, 52% $\frac{1}{4}$ to $\frac{1}{2}$ mile away, 32% $\frac{1}{2}$ to 1 mile away, and 4% 1 to 2 miles away (229 people sampled). Under certain conditions the turbines could be heard up to 2 miles away. One of the most disturbing phenomena was the cumulative result from multiple towers, producing sound out of synchrony, known as "line noise". Dr. Amanda Harry, a British physician, found (near a 16-turbine installation in 2003) that 13 out of 14 people surveyed reported an increase in headaches, and 10 reported sleep problems and anxiety. Other symptoms included migraine, nausea, dizziness, palpitations, stress, and depression.

Closer to home, Dr. Michael Nissenbaum, a radiologist from Northern Maine Medical Center in Fort Kent, interviewed 15 people from 11 families in Mars Hill and found that 14 of the 15 residents reported difficulty sleeping, and 15 new prescription drugs are being taken by those residents for conditions including migraines, depression, and sleep disturbance. "These people are suffering - they are truly suffering. And no one is listening to them and no one really seems to be doing anything about it," Nissenbaum said in a WLBZ2 interview May 14th, this year. "It's like an airplane that never takes off or like a locomotive that never arrives or never leaves."

These experts conclude, based on these data, that wind turbines should not be built within 1.5 miles of people's homes. There will still be health and life quality problems caused by wind turbines beyond this radius. People living 1.5 to 3 miles from a proposed turbine site should be notified of potential health and life quality effects, and for this they should be appropriately compensated. In our area, this 3 mile arc encloses a lot of surrounding territory: East Winn, Silver Lake, Madagascal Pond, the Upper Cold Stream Ponds, Bagley Mountain, and more.

So why, in the face of all this evidence, did the Lincoln Planning Commission reject the idea of a moratorium on wind farms last October? Why did the Lincoln Town Council approve a Tax Increment Financing agreement with First Wind this April? And why did the Maine DEP give approval to the project, even though their own consultant expressed reservations about the models used to determine noise levels? Conspiracy theories abound, and may have some validity, but I believe the reason is more basic. Our elected and appointed officials hear the words "tax base" and "green energy", and their eyes glaze over. They have developed a collective case of intellectual anorexia - you can fill their plates with knowledge and they just won't eat a bite!

One would hope that the Lincoln Planning Commission and the Lincoln Town Council would move to reconsider their actions, but this is unlikely. The Friends of Lincoln Lakes are working tirelessly to put a stop to this madness. We are taking the Planning Commission to court for pushing the project forward, and we are appealing the Department of Environmental Protection approval. You can help. To find out how, visit our web site:

www.friendsoflincolnlakes.org

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