

FAIR WIND

Your newsletter on industrial wind development in Jackson ME
Sept 24, 2009

Consensus grows: Wind turbines near homes make people sick

The Maine Medical Association (MMA) can now be added to the growing list of health professionals who agree that industrial wind turbines situated too close to homes can make people sick.

The MMA passed a resolution at its annual meeting on September 12 urging greater consideration of up-to-date information on the negative health effects of placing turbines too close to homes. (Page 4)

How close is too close? Definitely anything less than a mile, says Robert Rand, one of only two nationally-credentialed acoustical engineers in Maine. Rand recently presented his expert opinion to the Montville Board of Selectmen and to the Jackson Planning Board. Rand also played a recording of a wind turbine inside a house at a level equivalent to noise

heard by Mars Hill residents 1800 feet from the turbines. We do our best to describe it. (Page 3)

Jackson Planning Board Chair Brenda Dennison heard Rand's presentation. Yet she says she cannot support a mile setback "because it will kill the project" and that her job as PB Chair is to promote the project. (Page 2)

Meanwhile, the Thorndike and Dixmont Planning Boards appear to be looking out for the health and safety of their citizens. Both are currently recommending a one-mile setback of wind turbines from property lines.

We sincerely hope Jackson's Planning Board will consider the ever-increasing evidence for a reasonable setback and recommend the same - if not more.

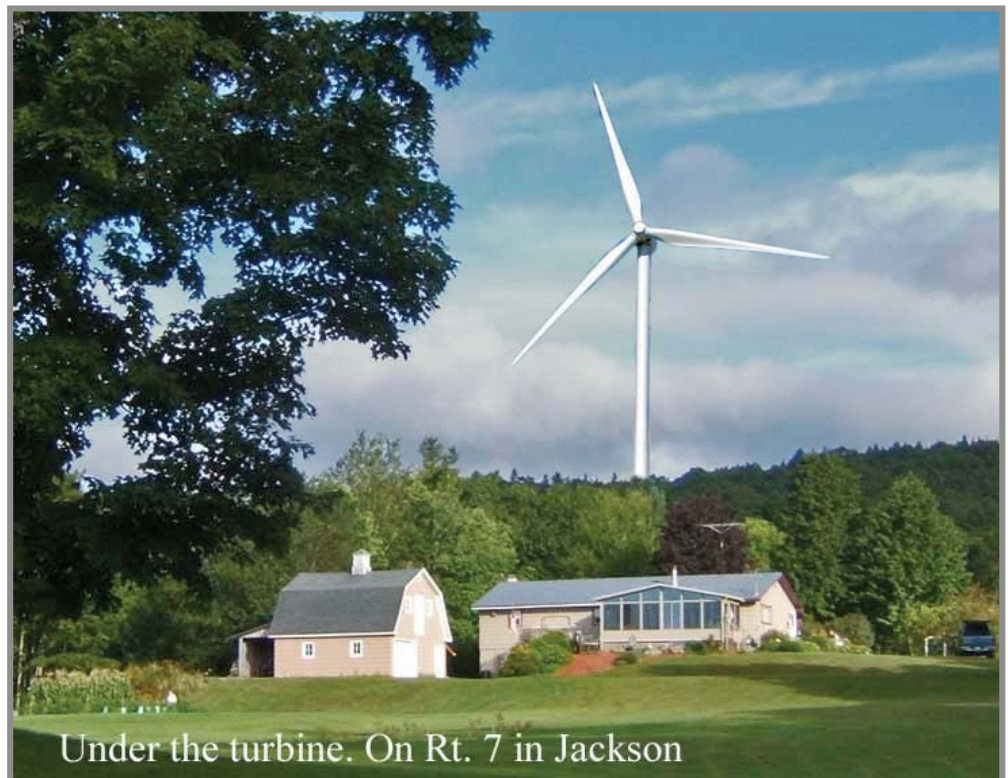
A thousand words

Jackson resident Tom Olds and Dixmont resident Grace Keown have mocked up several photos of what the planned industrial turbines might look like in our towns.

The turbines in the photos are to scale based on the best information available about the size and planned location of the turbines.

We doubt we will see turbines in front of the Jackson Town Office.

But with the zeal with which our Selectmen and Planning Board Chair are chasing the wind, we thought it was worth including a photo.



Planning Board Chair says her job is to promote the wind project

Planning Board Chair Brenda Dennison is facing increasing scrutiny about her objectivity on wind turbine development after stating at the Sept. 10 PB meeting that, as the Planning Board Chair, she feels the PB should be promoting the industrial wind project.

At the August 6 PB meeting, Dennison had said she could not support a mile setback because a mile would "kill the project." That comment prompted PB member George Faulkner to respond that the role of the PB was not to be a booster for development, but to promote appropriate planning based on the Jackson Land Use Ordinance and the Jackson Comprehensive Plan.

On Sept 10, Dennison was placed under pressure from PB members and observers alike to justify her position. Dennison claimed that the "people in this town voted to go... wanted this project." After bewildered protest from numerous members of the PB and the audience, it came out that Dennison was referring to a "straw vote" taken at the January 6, 2009 meeting where Jackson residents adopted a moratorium on industrial wind development.

The "vote" referred to by Dennison was a straw vote taken by Selectman Ludden while people were walking out the door.

Fair Wind reviewed an audiotape of that meeting and can confirm that Ludden's question was very vague: "How many people in this room are in favor of wind power without or with, say, stipulations?" The question did not explore what stipulations people thought would be appropriate.

It is highly disingenuous for Dennison to claim this as a town mandate for industrial wind development. To the contrary, the Jackson Planning Board Ordinance states that the PB "is responsible... for implementing the wishes of the townspeople as expressed within the Jackson Comprehensive Plan....".

The current Comprehensive Plan does not mention wind turbines, but it does very clearly attempt to preserve scenic beauty and rural character. This is the guidance that the PB is legally bound to follow under the Planning Board Ordinance.

Dennison's position is also questionable in light of mounting evidence showing that setbacks of less than a mile are almost certain to cause serious noise problems leading to sleep disturbance and other health issues among many people within that radius. As reported on page 3 of this issue, Dennison has heard this evidence directly.

When Dennison was elected as PB Chair in March, David McDaniel, co-chair of the PB's wind sub-committee, asked

her whether she could objectively lead deliberations on wind turbine policies given that, as Town Clerk, she reports directly to the Selectmen, two of whom at the time had a direct or significant financial interest in the project going forward. Dennison said she could.

McDaniel raised the issue again on Sept 10, saying, "You are directly employed by three Selectmen. At least two of these Selectmen have very strong opinions. They want the project to go forward. ... I think you have a conflict. I don't think any human being would *not* have a conflict in that circumstance."

McDaniel suggested that Dennison need not resign as Chair, but delegate the role of Chair to another PB Member during PB discussions on wind development.



Dennison responded, "I work for the people of this town, not the Selectmen." Her only direct response to McDaniel's suggestion that she hand over the Chair's gavel was that "you [McDaniel] have an opinion, but it's not your decision."

Dennison also said that the Selectmen do not tell her what to do. If this is true, the only logical conclusion is that Dennison does not have the appropriate judgment or openness of mind required to lead the PB's deliberations on wind turbine development.

Dennison is in a tough position. She has to attempt to be impartial as a Chair, while knowing full well what her bosses want as the outcome. We agree with McDaniel: It is unrealistic for Dennison or any other human being to balance these competing pressures. A good Chair would recognize the conflict without being defensive, and temporarily hand over the reins to someone else.

Acoustics expert tells Planning Board: Distance is only reliable way to reduce noise

Most people who doubt that wind turbines are noisy would cast aside doubt after hearing Robert Rand talk - and after hearing a recording of the noise.

Rand, of Rand Acoustics in Brunswick, ME, spoke to the Jackson Planning Board on Aug. 27 after some Jackson residents heard him speak in Montville and urged the PB to hear his presentation.

Rand, a practicing acoustics engineer for thirty years, is one of only two Maine members of the national Institute of Noise Control Engineering. He has spent his career advising industrial clients on how to reduce noise to avoid harm and, at the same time, avoid lawsuits.

Rand has spent the last year trying to understand the noise issues at Mars Hill. He says he wanted to figure out why noise from wind turbines were perceived as noisier than "planes, trains and automobiles". The latter are perceived as annoying at about 42 decibels (dba). Turbines are perceived as annoying at about 32 decibels.

This is why. Wind turbines make exactly the kind of noise that our ears are hard-wired to detect: low sound in the same wavelength range as human speech, and slow vibrations to which the human ear is very sensitive.

Rand said, "You could not have designed a more attention-gathering sound than a wind turbine."

Rand says wind turbines are a highly unique noise source, comparing them to really, really big fans. The tips of 100-foot turbine blades travel at Category 4 hurricane speeds when the surrounding wind is only 20-25 mph. As the blades turn, air collapses off the blade. This is what sound engineers call a vortex, and what creates the ruffling or "phoomp, phoomp" sound that generates most noise complaints.

And wind turbines are perfectly situated to make more noise on the ground at night when most people are trying to sleep.

During the day, hotter air sinks below cooler air. This condition causes sound waves to bend up. At night, it switches. Cooler air sinks below hotter air (inversion) and sound waves bend down.

This means that a noise source 200-400 feet in the air - i.e. a wind turbine - will send sound waves further and more quickly down through the inversion layer.

According to Rand, if you live in a valley and the turbines are on a hill, it will be worse still. Rural valleys are usually quiet with a background noise level at night of about 20 dba. The stable night air moves more easily and the turbines encounter little resistance. The result is a much larger difference between the background

sound and the pulsing "phoomp" of the blades. It's this that disturbs sleep.

The wavelengths created by the low frequency sound are so long that they move right through the walls of a house. As a result, the noise level is almost the same inside as outside. And because the walls and roof have resonance, the sound indoors can be even louder than outside.

Rand says the reason wind companies have been able to get projects permitted under Maine's state noise standards of 45 dba is that they don't typically submit the broadband noise studies that reflect the low frequency noise that starts to become annoying at 30 dba. The studies also do not typically report the peak sounds of the "phoomp".

And in any case, the State standards are based on urban, not rural settings.

Rand says that currently, the only ways to control the noise are through distance or the slowing of the blades.

In Europe, engineers slow the blades down at night. But in the US companies have refused to do so. After all, slowing of turbines reduces their financial gain.



Planning Board members George Faulkner and Brenda Dennison listen to acoustics engineer Robert Rand.

The only practical solution is to ensure an adequate setback from property lines in order to protect non-participating landowners. Rand recommended a working minimum setback of at least a mile, but that 2 miles would be better based on the evidence.

Rand emphasized that he supports wind power. But he said the only way wind power will be accepted in Maine is if it doesn't harm people.

Rand concluded by playing a recording taken inside an insulated house in Wisconsin located 1800 feet from the closest turbine. He set the playback level to accurately reflect the level heard inside the home.

At first it sounded like boots in a drier. As time passed it became more and more annoying. As

Rand continued to talk over the noise, a physical feeling of oppression started to set in, perhaps from the conflict of the noise with his voice.

After about 10 minutes of the sound recording, Rand asked the audience if he should turn it off, to a resounding "yes". The cessation of sound was amazing. Everyone was speechless and heaved a great sigh of relief. A few may have had new sympathy for the Mars Hill and Freedom families who can't "turn it off".

Rand will present to the Dixmont Planning Board on Sept. 29, 7:00pm, Dixmont Town Hall. The meeting is open to the public.

"You could not have designed a more attention-gathering sound than a wind turbine."

Maine doctors urge greater caution to protect public health

Maine's doctors gathered in Bar Harbor from Sept. 11-13 for the annual meeting of the Maine Medical Association.

Delegates to the meeting overwhelmingly supported a resolution acknowledging the potential for serious health problems caused by industrial wind turbines sited too close to homes. The vote was 44 to 6 in favor.

The resolution was sponsored by Drs. Michael Nissenbaum and Albert Aniel. Dr. Nissenbaum has studied the health problems of the families at Mars Hill living within ¾ mile of the turbines and plans to publish his findings later this year.

The full resolution:

WHEREAS, proposals to locate and build wind energy facilities in the State have at times proven controversial, due to concerns regarding potential effects of such facilities on the public health, and



WHEREAS, the trade off between the public good of generating electricity and the adverse health effects warrant appropriate evidence-based scientific research, and

WHEREAS, assessing the potential health impact of wind turbines has been difficult to measure but if present would be of significant concern. This is especially apparent regarding the noise level and other noise characteristics specific to industrial wind turbines, and

WHEREAS, there is a need for modification of the State's regulatory process for siting wind energy developments to reduce the potential for controversy regarding siting of grid-scale wind energy development and to address health controversy with regulatory changes to include, but not limited to:

- a) Refining certain procedures of the Maine Department of Environmental Protection and the Maine Land Use Regulation Commission to reflect scientific evidence regarding potential health effects, and to further explore such potential health effects;
- b) Judging the effects of wind energy development on potential public health by avoiding unreasonable noise and shadow flicker effects, with development setbacks and incorporating up to date noise regulations specific for industrial wind turbines adequate to protect public health and safety.

THEREFORE BE IT RESOLVED that the Maine Medical Association work with health organizations and regulatory agencies to provide scientific information of known medical consequences of wind development in order to help safeguard human health and the environment.

AND BE IT FURTHER RESOLVED that the Maine Medical Association 1) work with other stakeholders to encourage performance of studies on health effects of wind turbine generation by independent qualified researchers at qualified research institutions; 2) ensure that physicians and patients alike are informed of evidence-based research results.



News Bites



Mars Hill residents sue Town, wind company, contractors

After two years of noise problems from wind turbines, Mars Hill residents have experienced a lack of responsiveness to their concerns by First Wind and by the Town of Mars Hill. They have also seen their property values plummet. One group of Mars Hill residents has finally had enough and has sued the Town of Mars Hill, the wind developer, and construction firms for losses.

Mars Hill residents say they were misinformed about the level of noise that the turbines would make and about the impact that the turbines would have on their quality of life.

See a video of their story at: <http://www.wind-watch.org/video-marshall.php>



Hatch Road, with Greeley/Anthony property visible

Northport says NO to industrial turbines

The Village Soup reports that residents of the Town of Northport roundly rejected a proposal to investigate a community wind project (Aug. 21): "By a margin of more than nine to one, residents voted at a special town meeting Thursday, Aug. 20, not to hire consultants who would have pursued grants and other funding sources for a community wind project.

"A total of 82 residents filled the gym at the Edna Drinkwater School Thursday evening to vote on whether or not to appropriate \$50,000 from the town's fund balance to secure the services of Ra Power Solutions to help the town with the wind project.

"Reaction from the audience at [a previous] meeting ranged from support to skepticism to outright opposition to what Ra Power had presented. In addition to the lopsided vote at the Aug. 20 meeting, there were other indications that night of the lack of support among the residents in attendance for Ra

Power's proposal.

After moderator Joe Moser read the article seeking authorization to appropriate the \$50,000 to hire Ra Power and secured a motion and a second, he asked for comments from the audience.

"Former Selectwoman Dee Reid spoke and urged people to vote against the proposal. She said although she supports the idea of alternative energy, she felt the proposal represented an "unprecedented great rush" that centered around a "complicated, unproven financial structure."

Judge says Planning Board in Massachusetts can refuse wind turbine permit

Abby Goodnough writing in the New York Times, September 13, 2009 reports on a refusal of a small windmill installation in Bourne, Massachusetts. The Bourne town lawyer Brian Wall said, "No qualified engineer had certified that the windmill would be quiet or that its 'shadow flicker' – the strobe of sunlight passing through rotating blades – would not bother the Howlands' neighbors.

"In his ruling, Judge Muse wrote that while he did not believe the windmill would pose a safety threat, the planning board's decision fell within its discretion and was not 'unreasonable, whimsical, capricious or arbitrary.'

"Megan Amsel for the Cape and Islands Self Reliance Corporation, a nonprofit group that promotes alternative energy in Cape Cod and southeastern Massachusetts, said she had seen some disastrous wind projects – not because they proved unsafe, but because they did not generate enough power.

"'It's really hard to find a good installer,' she said, adding that there are no certification requirements. 'I've seen some real disasters, and it can give this emerging industry a black eye.'"

Art imitates life

Remember the Oliver Stone movie "Wall Street" with its anti-hero Gordon Gekko who said famously "Greed is good?" Well, apparently Stone is doing a sequel.

Speculating about what that might be, David Segal of the New York Times (September 13, 2009) recently imagined Gekko getting out of prison and creating his own wind power company, American Breeze. Newsweek magazine has a photo of Gekko amid a row of wind towers on the cover. "Government chips in with stimulus money; private backers line up.

"American Breeze creates an immense and thriving secondary market in energy credits. Gekko is hailed as the 'Al Gore of Commerce.'

"It's all a charade...American Breeze is mostly a fraud; seven of its wind farms are nothing more than a collection of unloaded semi-trucks with steel beams. But Gekko earns a fortune selling energy credits to notorious polluters."

Reader Response



Thank You, Donors! Thank you to a new anonymous donor who is sponsoring this entire issue! This sponsor appreciates the information that the newsletter provides to Jackson residents. We also had a new surprise out-of-town donor, whose contribution we appreciate.

In response to "Turbine Tax Math" in Issue #4, a reader asked if the economic gains from turbines in town would offset the losses or *vice versa*.

This is hard to say. Turbines don't guarantee lower taxes, as Freedom's experience shows (*Turbine tax benefit eludes Freedom residents, Village Soup, Aug 11*). And it is difficult to say exactly how much property values will decrease without appraising properties before and after the turbines, and testing their value on the market.

We hoped to try to estimate property value losses offset against lease income to participating landholders, using property values as assessed by the Town. If economics is the only issue, this seems a fair comparison.

But this also proved difficult. Jackson values raw land at \$500/acre. This greatly undervalues land on or near the ridges, which is the land most likely to lose the most value.

But there's another way to look at it. What if the majority possibly gets a small tax break, but a considerable number almost certainly loses a lot of property value? And suffers potential insomnia, depression and stress because of turbine noise?

Under this scenario we would be asking some neighbors to

pay a very high price for a small and uncertain benefit for the majority. Normally, we'd call this Eminent Domain, and those paying the price would be compensated for their loss. But for some reason industrial wind is allowed to steamroll projects into communities despite the consequences.

"Thank you for your fine service to the town."

People hated and loved our euphemism "folksy fricatives" for our selectman's speech, which was as near as we felt we could come to describing it in a family newsletter. One reader said our "splitting communiqué ... showed a surprising level of character."

This issue is dedicated to **Ivory**, a good horse and a faithful friend. 1989-2009



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