

Thank you for allowing me this opportunity to speak.

My name is Wendy Todd. I am a resident of Mars Hill and a lifelong citizen of the state of Maine. I live approximately 2600 feet from multiple turbines located at the Mars Hill Wind Facility. To date, I have attended two of the task force meetings and have tried to keep up with most of the reading material. Today I am here representing a number of families who are my neighbors and friends. They are experiencing the same things that my family and I are experiencing, with respect to the wind turbines.

My husband Perrin and my three children moved back to Aroostook County after living in Southern Maine for approximately 14 years. We moved back because we wanted to raise our children in a known, safe, nurturing environment. You see, Mars Hill is my hometown. It is a small town, with a reasonably good sense of community. It has a great school system – but most of all it is where my family lives. My parents own a farm on the Canadian border that lies on the Northeast side of Mars Hill Mountain. My grandfather purchased the farm in 1914 and farmed potatoes for 46 years before my parents continued the tradition of farming in 1960. In my opinion it is some of the prettiest acreage in Aroostook and I was very happy to come home to it, in fact...it was my dream.

The turbines however, have changed most of that as the land that was once known for its remote nature, wildlife and solitude is now home to an industrial power plant. For anyone to say that a wind turbine facility has a low impact on the local environment is irresponsible. Yet the industry and the media surrounding it seem insistent on making light of the problems that exist. The problems are real and they are hurting families emotionally, physically and economically.

1) Many are worried about how the turbines have affected their property value and what they planned to leave to their children. Some families have given up their dreams of building homes because the turbines have changed the very nature of the land and how they planned to use it. The construction phase drove much of the wildlife from the area and it has been very slow to recover. We wonder if the wildlife population and characteristics will ever be the same.

2) Noise and shadow flicker create anger and frustration as they invade our homes and land. The noise keeps many residents from a proper night sleep, resulting in more frustration, anger and stress. It has led to time missed at work for some and sleep aids for others. Most of these families have resorted to sleeping with the house shut up tight, curtains drawn with fans running or other white noise sources at their bedsides. Sleep deprivation and stress has led to a number of other issues that are of concern. One resident has started on anti-depressants, three residents are experiencing increased migraines and another family has separated. These families attribute the blame of these issues on the surrounding turbines. Recent studies correlate the noise and vibrations associated with living too close to turbines to a number of health issues that range from ringing in the ears to vibro-acoustic disease. Other determined

health issues include an increased risk of seizures for those who are prone to seizures, an increased frequency and intensity of migraines, stress headaches and inner ear problems.

Unfortunately for us, the very mountain that has provided the wind facility with a Class 3 wind resource often acts like a fence protecting us from the upper level winds that push the turbines. There are many times when winds are high on the ridgeline but are near calm at our homes. The noise and vibrations from the turbines penetrate our homes. At times there is no escape from it. It doesn't matter which room you go to, there is no escape from the noise. The noise ranges from the sound of a high range jet to a fleet of planes that are approaching but never arrive. When it's really bad it takes on a repetitive, pulsating, thumping noise that can go on for hours or even days. It has been described as a freight train that never arrives, sneakers in a dryer, a washing machine agitating, a giant heartbeat, a submariner describes it as a large ship passing overhead.

If the wind turbines are spinning we hear them. Yes, there are days when the turbines are rotating and very little noise is emitted. There are days when we can't hear them at all inside our homes. Those are generally days when the turbines are spinning less than 15 rotations per minute (RPMs). A visiting engineer from GE said that the turbines do not start generating power until the turbines reach 17 to 18 RPM. The turbines need consistent wind speeds of 4 ½ meters per second - so on most days when they are not making noise they are not making power either.

People think that we are crazy. They drive out around the mountain, stop and listen, and wonder why anyone would complain about noise emissions. But believe me when we are having noise problems you can most assuredly hear the justification of our complaint. We have had people come into our yard, get out of their vehicles, and have watched their mouth drop. We have had company stop in mid conversation inside our home to ask, "What is that noise?" or say "I can't believe you can hear those like that inside your house."

Visiting a wind facility or sitting at the end of someone's driveway once or twice for 2, 3, or even 10 minutes to listen does not make that person an expert on turbine noise. To be an informed witness could take days or weeks for one to know and experience what we are living. Not until an individual has been in a home and has heard turbine noise emissions of 45 decibels or higher does that individual have any right to judge how turbine noise truly affects the lives of people. Even noise experts should be talking to residents who are living next to turbines to ensure they are collecting data that is relevant to the burdensome noise emissions heard by those who live closest to them. Let us tell the sound experts when we are having a noise issue.

Nick Archer, our Regional Director with the DEP thought we were all crazy, too. But he finally made it to our homes and heard what we were talking about. I don't believe he has ever heard a 50+ decibel day but he has heard close to that on more than one occasion and has made statements like these. "This is a problem." "We need to figure out what is going on with these things before we go putting anymore of them up." "I thought you were crazy at first but you are not crazy." "The quality of life behind the mountain is changed." Did he say these things just to appease us? I don't believe so.

Because of the complaints from residents around the mountain the DEP started an investigation into the noise levels being emitted from the Mars Hill wind facility. The wind company agreed to do a sound study and is working with the DEP to determine compliance. Maine state law allows projects to emit 45 dBA of noise at protected locations like ours, (quiet areas) up to 500 feet from sleeping quarters. For some reason, the Maine DEP granted the UPC/Evergreen project a 5-decibel variance, thus allowing the turbines a noise ceiling of 50 dBA at protected locations. Resource Systems Engineering (RSE) conducted the first round of sound tests in May of 2007. The May study revealed two locations on the North end of the mountain with readings over 50 decibels.

Presently, the DEP is reviewing that May study along with a series of questions posed by the Mountain Landowners Association of Mars Hill. The study has been in their possession since the end of June and again the residents whose lives are being affected by the noise are being asked to be patient. I want everyone here to understand, it has become extremely disheartening to be asked to live with noise that UPC/Evergreen stated would never exist. It is frustrating to know that the turbines are being allowed to continue operations with no restrictions even though the study shows that they are over the limit that the permit allows.

Nick Archer our Regional Director of the DEP stated at a meeting with our group that “anything over the permit level would be out of compliance, whether its out by 1 dBA or more, out of compliance is out of compliance”. The study shows that the turbines are over the DEP’s limit yet it seems that things are no longer that clear cut. The World Health Organization says, “Where noise is continuous, the equivalent sound pressure level should not exceed 30 dBA indoors, if negative effects on sleep are to be avoided.”
www.who.int/docstore/peh/noise/Commnoise4.htm

I understand the Governor’s desire for wanting wind to work in Maine, but surely it is not to the detriment of people who live and pay taxes here. Many were for the Mars Hill wind turbine project but we were misled as a community and as a state we are still being misled.

The wind company that came to Mars Hill misrepresented facts and spoke in half-truths. The town manager and town council of Mars Hill believed them and based their decisions on this information, and the project moved forward. Most people truly believed that the benefits to the town, county, state, country, and world were well worth any negative impact from the visual aspect of the turbines. Visual impact was the biggest negative impact that was ever talked about.

Maine Site Law & Regulations – Section 484 states that “the developer is responsible for fitting a development harmoniously into the existing natural environment and to demonstrate that the development will not unreasonably affect existing land uses.”

Now, of course, it is too late for the truth. The turbines are there and most likely will remain. But this task force can help other communities protect themselves. Information is power and the people of Maine and the nation have a right to all the facts.

What am I talking about...?

Statement:

The wind company said it would create hundreds of local jobs that would be filled by local businesses whenever possible.

Reality:

Most of the construction jobs went to contractors outside of Aroostook County.

Statement:

When asked how much electricity would be created and where it would go the answer was “At full capacity the plant will generate 50 megawatts, enough to power approximately 50,000 average Maine homes and at 40% capacity it would supply electricity for 24,000 - 25,000 homes. All the electricity from the Mars Hill “wind farm” will be used in the region, most likely by Aroostook County homes and businesses.

Reality:

Now we know that any given wind facility has an efficiency rating somewhere between 25% and 35%. The electricity generated from the Mars Hill facility goes to Canada.

Statement:

They said that the facility would likely help to stabilize electric prices. “Electricity cost from wind power is very competitive and sometimes lower than most other sources of fuel-based power. The more wind power that can be generated in Aroostook County and Maine the more you can count on the possibility of more stable or even lower electric bills in the future.”

Reality:

The truth is that our electric bills went up approximately 40% this year and are due to go up again.

- They didn't mention the blasting that shook our homes, rattled dishes, cracked walls and allegedly even dried up wetlands and damaged leach fields.
- They didn't mention shadow flicker and strobing effects.
- They didn't mention ice shear, or risk of tower collapse or blades breaking off.
- They didn't mention anything about increased risk of lightning strikes or fire.
- They didn't mention interference of TV, radio or radar waves.
- They didn't mention anything about possible devaluation of property to those who live a mile or less from the site.

Statement:

The wind company told the town of Mars Hill that there would be no noise at all at the bottom of the mountain. They said that a person would have to be 500 feet or less from the project to hear anything at all. If the wind is blowing, the background noise of wind in the trees is all you will likely hear! It was said verbally, it was in handouts at the town meetings, and it was on the Evergreen/UPC website.

Reality:

You have heard my testimony on what the reality is for those that live the closest to the turbines.

Statement:

They said that public access to the mountain would be unchanged.

Reality:

The landowners still have the right to allow people on their property but many have been made to feel that the dangers of allowing access to an industrial power facility would be unwise.

They stated that there would be major environmental benefits because of the Mars Hill Wind Facility.

- 120,000 tons of Carbon Dioxide = to removing exhaust emissions from 17,000 automobiles
- 420 tons of Sulfur dioxide
- 288 tons of Nitric Oxide

Where are the carbon emitting plants that the Mars Hill wind facility shut down or reduced the output of? The fact is the fossil fuel burning plants are still on line. Even if they are on “standby mode” they are still emitting. They need to be ready to take on the load whenever the wind isn’t blowing. Show the public where the carbon emitting plants are that have been shut down or have reduced output due to wind turbines, or stop saying that they reduce carbon emissions.

What about the tax benefit to the town of Mars Hill? The town signed a TIF agreement with the wind company for \$500,000 a year for the life of the project (20 years). Because of that \$500,000 a year, the town of Mars Hill will be losing \$249,000 in school funding. That brings the total benefit to the town down to \$251,000.

During the last task force meeting I believe Kurt Adams with the PUC said that Maine makes all the power it needs. It doesn’t need to make more power to service Maine homes and business. Why should Maine taxpayers pay to upgrade the grids if they do not benefit from the power? I believe Mr. Adams also stated that Maine calls for the most electricity in the summer and yet the wind plant in Mars Hill is off for days at a time in the summer because there is no wind. Someone, please correct me if I am wrong.

I think by now most of us have heard about and done a little research on the government subsidies and green credits that are helping the wind industry to thrive. During a meeting on April 30, 2007 before the Agriculture, Conservation and Forestry Committee, Senator Sherman from Houlton asked the question “If it wasn’t for the subsidies and green credits would these turbines be going up?” The answer was “No. It is not feasible or viable.” The subsidies and other programs are what make wind turbines lucrative. The green credits are being resold (at a premium) to the fossil burning plants, which in turn allow them to fall into federal compliance. That “premium” is paid to the turbine developers who benefit again.

So then, what is this all about?? Is it about a need for more electricity? Is it about a need for renewable energy in the hopes of saving the planet from carbon emissions? Is it a need for new industry? Is it to lessen our dependency on foreign oil? How do you make the answer important enough that it is OK to drive people from their homes, land and dreams?

Is it really practical to continue the rush to site and construct wind turbine facilities that we know are at best 35% efficient?? Where is the logic? If any of us were to establish a business that was only 35% efficient, invent a machine that was only 35% efficient, or heat a home with a unit that was only 35% efficient would there be any investors?? Has Maine looked into what will balance that inefficiency? I have seen documents that show that the west coast states are seeing good results from the combination of hydro and wind because hydro can come on line when the wind isn't blowing.

A recommendation might be to use the taxpayer's money by instituting a state conservation program that mandates housing upgrades such as new windows, new insulation, etc. for every house in the state of Maine. All of which, if implemented would further reduce our electricity/oil consumption and decrease our dependency on foreign oil and decrease fossil fuel emissions. I realize that this wouldn't be easy nor would it fix the whole problem, but it is directly related to the taxpayer in a positive way and would have real and meaningful numbers that include a decrease in cost for heating and air conditioning for each home.

We are not against people making money. We are not against wind turbines. Proper set backs take care of most of the issues with turbines. But, if you allow siting to continue as it is now and thereby negatively change people's lives, then you also need to ask yourselves if you are all willing to live with those impacts.

Are you willing to live beside a neighbor who makes so much noise that it keeps you from sleep, drives you inside from enjoying your land or makes reading and other thought process difficult? Are you willing to alter the way you live in your home and use your property so that a neighbor can prosper? How about your children and grandchildren? Are you willing to have them live this close to turbines with the health risks that I spoke of earlier?

All of you are in positions of responsibility and are charged with having to make important decisions regarding wind turbine siting. The decisions that you make here on this task force are not only related to the people of Maine, but to people across the nation, and even the world. You have heard from the industry, the PUC, the residents who are both for and against these projects and many more. You now need to find a way to achieve a balanced direction and make recommendations that will protect everyone.

I have included some web site addresses within this document and hope to encourage you to read the informative contents of each. I would also like you to pretend for a couple of hours that you are about to have an industrial wind turbine facility constructed in your backyard. I want you to research these documents as if they were going to affect you and your loved ones. The Mars Hill wind facility has affected my family and my neighbors in ways that only a few can understand. I feel that it is my duty to inform you the best way I know how about our stories, so that what happened in Mars Hill doesn't have to happen to anyone else.

I thank you for your time.

References:

Noise Radiation from Wind Turbines Installed Near Homes: Effects on Health

<http://www.windturbinehealthhumanrights.com>

Effects of the Wind Profile at Night on Wind Turbine Sound, by G. P. van den Berg

<http://www.nowap.co.uk/docs/windnoise.pdf>

If you found “*Effects of the Wind Profile at Night on Wind Turbine Sound*” helpful this later study may be of interest as well. It is a little more technical but helps explain why turbine noise is so burdensome to residents who live too close:

The sound of high winds: the effect of atmospheric stability on wind turbine sound and microphone noise, May12, 2006, by G.P. van den Berg

<http://dissertations.ub.rug.nl/faculties/science/2006/g.p.van.den.berg>

If you would like other studies, articles, pictures, videos, and perspectives pertaining to most wind turbine subject matter you could visit www.windaction.org - we have found it very helpful in saving time when researching an item. We start there and branch out. Their video and picture section may help some on the task force who have not visited a wind turbine site understand the visual impact.