EXCERPTS FROM INFORMATION SUBMITTED BY THE APPELLANTS DURING THE REVIEW PROCESS

DEP COPY

Mary Beth Nolette
Friends of Lincoln Lakes
February 11, 2009

Issues regarding the proposed installation of Wind Turbines in the Lincoln Lakes Region

The Rollins Mountain Project proposed by Evergreen (First Wind, UPC) is the largest industrial wind installation that is being considered in close proximity to a town of 5300 residents, and a tourist destination to the 13 Lincoln Lakes (as well as to the other lakes that are in close proximity but located within other towns). A substantial part of the local economy in Lincoln is received from people who travel to the area for camping, fishing, hunting, snowmobiling and boating. Lake-front property taxes have increased by 400-600% in the last 5 years. The camp owners in the area have invested in the region because of the unspoiled beauty, the tranquility, the wildlife, and the ability to enjoy the quiet beauty of the lakes in all season, at day and by the brilliant starlight that punctuates the sky at night.

The proximity to and the potential negative impacts on the local property owners, residents and tourists should not be underestimated. There needs to be a fully comprehensive understanding of the short and long term effects to the people, the lakes, and to the local flora and fauna. The economic justification in the application must be compared to the loss in the local economy and to tourism as they go elsewhere to spend their time and money. The loss will also be seen in the reduction in property values for those camps that are within 5 miles of the turbines. Property values near the Mars Hill towers decreased 25-50% after the windmills were installed.

The application that First Wind provided to the Department of Environmental Protection, though many pages in length, leaves a number of gaps in the information that is needed to make a fully informed decision.

A visual impact study should be included to determine the short, medium and long distance visual impacts to the region. There are substantial viewpoints within 5 miles of the proposed industrial zone.

A comprehensive biological evaluation must be made for each of the lakes within 5 miles of the proposed installation.Lakes near the proposed Wind installation should be fully evaluated prior to any destruction of the local hills. They should have a full evaluation using the standards set forth in the Maine Wildland Lakes Assessment Work Plan, in which lakes were evaluated on several criteria. These ponds are on the list. However, the assessment is incomplete. The evaluation criteria rate a lake on its intrinsic value for outstanding or significant qualities that warrant extra protection by the DEP..

Based on the criteria used in the original survey assessment, the Lincoln Lakes have enough of characteristics required by the criteria to warrant a complete evaluation. I can only speak in terms of the lake upon which my camp is located.

Fisheries

The fisheries in the Long, Caribou, Egg chain include bass, white perch and pickerel. There is anecdotal evidence of a possible Sunapee trout caught and released in 2008.

Scenic value

The minimum standard for visual scenic is a altitude change in 300 ft.

The ponds fit the scenic value criteria of changes in relief, bordered on two sides with Bagley and Rollins Mountains. There are two mountains at just under 1000 ft within a half mile of the shore and these mountains provide the backdrop for the lakes. The fall foliage season is particularly special.

Geologic Properties

They are spring fed ponds with bedrock outcroppings, sand beaches, and a small waterfall all within a varied shoreline configuration.

Botanic characteristics

There is a unusual ecosystem found at the juncture of Long and Caribou Ponds, and also found on Folsom and Upper Ponds. There are several floating islands. These floating bogs are home to a variety of rare plants. There is a large population of pitcher plants, rare sundews, and a rare variety of wild orchid. There may be others of which I am not aware. In addition to the ground level plants, the trees that are growing on the floating islands have developed as dwarfs. There are yellow pond lilies on Long Pond as well as white ladyslipper on the shore.

The environment beneath the floating islands is rich with life, and numerous small animals use them for feeding, as evidenced by small trails, and a small abandoned beaver dam.

Wildlife

There are several breeding pairs of common loons and wood ducks. I have seen moose, deer, beaver, rabbits and weasel. There is a small dam at the western end of Long Pond controlled by Haskell lumber. And there are a number of vernal pools in the area.

I believe that all the lakes within 3 miles of the turbines should be evaluated using the Wildland Lakes Assessment technique. At the very least there should be a baseline of information to be able to evaluate accurately the impact of changes on the unique local and rare species.

There will likely be government money as a part of the stimulous package that could be used for independent studies of the area.

A picture says a thousand words. I encourage DEP staff to go to www.friendsollincolnlakes.org, click on the loon icon and view the slide show. This rich environment of lakes and ridges is our legacy. In the slide show you will see the floating islands and the abundant wetlands that support the birds and animals that are threatened by the wind turbines.

Vernal Pools and Wetlands

The DEP adopted the statement that "A radius of 750 ft around a vernal pool is optimal for protecting viable amphibian populations. The DEP encourages efforts to protect more habitat adjacent to a vernal pool than this regulation has authority over". According to the US Fish and Wildlife Service, small wooded wetlands are the most at-risk wetlands in the United States.

The First Wind application, in its clearing plan, says that it will cut at ground level around vernal pools anything that is 8-10 feet or taller. Cutting the tall trees, that protect the vernal pools from overheating and prematurely drying out by over exposure to the sun and the wind, will not sufficiently protect these sensitive areas from destruction. It will reduce the water storage capacity that is critical to vernal pools. The National Resources Protection Act (NRPA) states that there must be maintained a minimum of 75 % of the critical terrestrial habitat as unfragmented forest with at lease a partly closed canopy of over story trees to provide shade, deep litter, and woody debris. Forest corridors connecting wetlands and significant vernal pools must be maintained. Removing trees that are over 8-10 feet tall is not acceptable under these guidelines. Vernal pool research has shown that populations of amphibians will decline if critical terrestrial habitat is severely devegetated or hardened during development.

"Waterfowl and wading birds require a 250 foot buffer around significant wetlands." This is a state requirement. It is unclear to me why the First Wind would only include a 25 foot buffer around wetlands. In addition, they state that they will place no structure within 25 feet of a stream. Isn't there a 75 foot state setback for structures near bodies of water?

First Wind states that they will place no pole in vernal pools. Shouldn't that say that they will not be placed within 250 feet of a vernal pool? There is a 250 setback requirement from significant vernal pools that have a high habitat value.

The consultant report indicates very few significant vernal pools within the proposed turbine and powerline areas. This seems questionable, given the terrain of the area. There are many vernal pools that were not included in the mapped area. I question whether this survey was a completely thorough biological evaluation. I question the data that included a survey of the vernal pools during critical lifecycle stages. Will the pools in the area be checked for fairy shrimp soon, since they hatch in late winter or early spring?

First Wind acknowledges that spotted salamander and wood frog may be present, which suggests that they were likely seen during the survey.

I feel that another vernal survey should be performed by a separate company to confirm whether there are more pools than are listed. Independent testing should be performed by state employees or state hired consultants. The hiring of outside consultants by First Wind should not be accepted out of hand. Keep in mind that they have been under criminal investigation by the New York Attorney General for several allegations that have been made.

First Wind states, when speaking of the 29 mapped rivers, streams and stream segments, that the stream segments are generally higher order streams. Some do not run for the entire year. They state that, although they need the definitions, they probably should not even be classified as jurisdictional streams because they don't generally contain fish, so they will not have a profound impact on fish. There are other vital residents in these small streams that likely do have a profound impact on the local ecology. The amphibian populations might argue that point. In addition, I suspect that there are nearby vernal pools that could be impacted by changes to these sensitive areas. They indicate that there will only be a small impact from clearing. I seriously question that analysis.

Bats and Raptors

Bald eagles are protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

There are currently no safeguards that can be put into place for protecting bald eagles, other raptors, and bats that are near wind turbines. Based on current local maps, there are many eagle nests along the Penobscot River corridor and several that are in close proximity to the proposed turbine sites, in particular one on Upper Pond that is within a quarter mile and 500 feet below a turbine. The eagles and other raptors use these ridges to gain height, since these are the tallest mountains around.

Appendix 7-3 p 3 covers bat and raptor migration. 82% of raptor observations were below the maximum turbine height. The study observed 144 individual bats in 12 days.

The average data showed that up to 46% of the total observed bats and birds were flying within the height of the blades. What is the State's acceptable kill levels for Bald Eagles? What is the acceptable kill levels for bats? First Wind acknowledges that Rollins South could pose a threat to the bald eagle nest nearby, but according to them it is not expected. The eagles use the mountains to increase altitude. It makes no sense that it would not be expected.

A recent scientific estimate of bat mortality by wind turbines indicated that about 30 bats may be killed per year for each MW of wind turbine that is operating. If installations continue to grow throughout the country, it is possible that over 5 million bats could be killed per year due to wind turbines. Do we know whether bat populations could sustain this type of loss in the United States? The data regarding the exploding lung problem in bats should be well understood by the Department before proceeding. In an area that depends on the bat population to control mosquito and black fly populations, we should be very careful about underestimating the impact to these local friends. The National Academy of Sciences has received funding to study bats and migration, *focusing on acoustic pre and post construction risk. We should delay construction to* understand the results of the study.

There is no data in the application that addresses any concern to the fragile common loon populations on the local ponds. Loons need at least a quarter mile for to get

off the water and much more to pass over the hills, because they have a high mass for their wing area. and the loons generally take off in the direction of Rollins Mountain from the Caribou Pond chain. Why was this no data included, since Long Pond is a nesting area as well as a fall migratory staging area for common loon? Loon populations are categorized as threatened or of special concern in Maine, and the local populations should be evaluated prior to any large construction in the travel path of the loon and other waterfowl.

Other

The night sky in Maine is an important part of the attraction to Maine for people both from away and local folks. This is because once it is gone, it is gone. The lighting required atop these turbines will create light pollution by the wind companies. The light scattering effects are effect a large area, particularly if using any type of magnifier to see the sky.

First Wind was very vague regarding blasting amounts, citing uncertainty about the underlying bedrock. There should be a way to more fully evaluate and estimate how much blasting will need to be done.

There is a legal battle with the town of Lincoln regarding the legality of siting the turbines on Rollins Mountain because of local codes.

Where are the studies that show the decrease in CO2 emissions as a result of wind power development?

The Lincoln Lakes region is rated poor to marginal for wind potential for wind turbines. How do we justify placing them in these low wind locations, instead of further toward the coast and in Southern Maine, where the wind and the demand for the power is the highest?

Eur J Wildl Res (2008) 54:533–535
DOI 10.1007/s10344-007-0165-4

SHORT COMMUNICATION

Palmated antlers of moose may serve as a parabolic reflector of sounds

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Received: 17 March 2007 / Revised: 20 November 2007 / Accepted: 5 December 2007 / Published online: 11 January 2008
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Abstract It has been postulated that the excellent sense of hearing in moose is mostly due to: (1) the large surface of the external ear, (2) better stereophony due to the large distance between ears, (3) independently movable, extremely adjustable pinna, and (4) the amplification of sounds reflected by the palms of the antlers. The last factor, possible reflection of sounds into pinna by the palm of the antlers, was tested in this study on a large antler trophy of Alaskan moose. The reception of a standard tone, broadcast from the frontally placed speaker, was recorded by a sound level meter located in an artificial moose ear. Three locations of the ear, as positioned relative to the speaker, e.g., frontward, sideward, and backward, were tested. The weakest reception was recorded in the backward position of the ear. If the sound pressure measured in the frontward position was set as 100%, the sound pressure in the backward position was 79%. The strongest reception was recorded when the artificial ear was positioned toward the center of the antler palm. In this position, the sound pressure was 119% relative to the frontward position. These findings strongly indicate that the palm of moose antlers may serve as an effective, parabolic reflector which increases the acoustic pressure of the incoming sound.

Communicated by W. Lutz

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Keywords Moose · Hearing · Palmated antlers · Parabolic reflector · Acoustic pressure · Sound amplification

Introduction

The moose, the largest cervid species, which can weigh over 700 kg, inhabits mostly boreal regions of northern Europe, Asia, and America (Bubenik 1998a). To locate suitable mates in the vast regions of the tundra, moose have developed keen senses of smell and hearing. Moose calling has often been recorded at distances of over 3 km, and some sounds produced by moose, such as hiccups are probably below the threshold of human perception (Bubenik 1998b). It has been reported that antlered bulls can locate the position of the cow with much greater accuracy than antlerless moose of both sexes (Bubenik 1987). It has been postulated that the capacity of antlered moose to locate sounds is fostered by four mechanisms: (1) the large external surface of the moose ear (the average surface of the pinna is around 430 cm^2, which compares with only 7 cm^2 in humans), (2) excellent stereophony (the distance between ears in moose is around 36 cm, in humans it is only 18 cm, (3) independently movable, extremely adjustable pinnae, movable in 360° around the ear base and 90° perpendicular to the body, and (4) the amplification of the incoming sound by the palms of the antlers which can serve as a parabolic acoustic reflector with focal points of 50 cm and more apart (Bubenik 1998b).

The last mechanism, the capacity of palmated antlers to serve as a parabolic acoustic reflector was first proposed by A. Bubenik. If his hypothesis is true, then the low frequency of moose sounds, which penetrate more easily through forested terrain, should be heard by moose at much farther distances than is possible for humans (Bubenik

Mary Beth Nikitte

This in reference to the Rollins Mountain Wind Project in Lincoln

In the early twentieth century a research scientist named Royal Rife did extensive research on radio frequencies and other sound frequencies. He was looking for anything that would show the effects, if any, these frequencies have on living organisms. Not too much to his surprise he found that there was a direct correlation between subliminal noise and the development of cell structures in living creatures. He was looked at as a fanatic whose work was extremely radical. The medical community elected to ignore his findings and ostracized him from their community. His work lay largely dormant for decades.

In New York a medical doctor has done the same research within the last few years coming to the same conclusion. Subliminal noises, infrasound and ultrasound, do in fact have a direct bearing on the development of cell structure. Her name is Nina Pierpont, and she is a Medical Doctor. She has published several articles on the subject, and is presently preparing a book for publication titled "WIND TURBINE SYNDROME". The label "Wind Turbine Syndrome" is rapidly becoming the name for the illnesses that are becoming more and more associated with industrial wind farms placed close to populated areas. There is increasing knowledge of these effects. The industrial wind turbine farm at Mars Hill, here in Maine, is a prime example. People who reside near the turbines are developing the same illnesses as discussed by Royal Rife and Nina Pierpont. It has been about two years or so since the Mars Hill Industrial Wind Farm was built.

A study was conducted by Elise Bittner-Mackin for presentation to the Bureau County, Illinois, Zoning Board of Appeals regarding the Crescent Ridge wind facility in Kewaunee County, Wisconsin. This document summarizes some of the problems realized from a survey conducted on all property owners in the township. The results are frightening. These results reflect the effects on people two years after construction. Illnesses associated with wind turbines and close residency are listed in this report as: sleep loss, diarrhea, headaches, frequent urination, 4 to 5 menstrual periods per month, bloody noses and inability to conceive.

A local Wisconsin dairy farmer reports cows bleeding to death from uncontrollable bleeding from the nostrils, decline in milk production, health problems that include cancer deaths, ringworm, mange, lice, parasites, mutations in newborn and more. All of these problems from a former prize winning dairy herd, and only since the construction of these turbines. If they do this to domestic animals what are they going to do to wild animals that we cannot monitor for these illnesses?

To learn more about the effects of these large industrial wind turbine farms simply go to the internet and use buzzwords like - wind turbine syndrome, wind turbines, Calgary Wind Turbines, illnesses and wind turbines, cons and pros of wind turbines, Royal Rife, Nina Pierpont. There are many others that you will discover when you get started.

I seriously urge the Maine Department of Environmental Protection to say NO!!! to the Industrial Wind Turbine Project slated for Rollins Mountain in Lincoln. There is very little known at this time on the effects these turbines have on people and animals. Nothing should be constructed until answers can be found and a resolution can be made that they are safe.

Sincerely,

Harry C. Epp

HARRY C. EPP
LINCOLN
290-0421

Maddox, Becky

From: Rachel Dicker [yvette@pivot.net]

Sent: Sunday, February 15, 2009 6:37 PM

To: Maddox, Becky

Subject: DEP FIRST WIND Concerns

Hi, My name is Rachel Dicker and i live at 1529 Lee Road Lincoln, ME 04457, which is across the road from the Rollins North Project Rt 6.

I was at the meeting held at Mattanawcook High School in Lincoln Maine on the 11th.

After hearing some very disturbing information on these windmills I am even more concerned for my Health and that of my inviroment. One of my concerns was NOISE and wildlife. After hearing testimony of two women from the Mars Hills area i feel even stronger that this project NEEDS TO BE STOPPED. Any one who cannot see this after listining to these two women or the facts presented has no concern for the people of lincoln or our enviroment.

I PRAY THAT you take careful consideration in your desision and **that you put your self in our shoes would you want this in your backyard or for your children.**

Thank you for taking the time to listen to the people of Lincoln.

Please keep me informed if possible.

Rachel Y Dicker
PO Box 796
Lincoln, ME 04457

To the DEP

Thank you for allowing this public hearing on such an ecologically sensitive area. Rollins Ridge may seem like a good spot for a wind project if the developers are "from away." For those familiar with the area it would be a disaster. I realize that you are concerned with the environmental side of the project but I would like you to know that Lincoln's zoning ordinances are being compromised or completely ignored by the town officials who should be enforcing them. It may be up to the DEP and Army Corps of Engineers to correct the deliberate local oversight as this project should never have come this far. Industrial generating plants are forbidden in RR2 zones. Transmission lines are allowed as are water, sewer, and natural gas lines. That said, the Planning Board should not have permitted the Rollins Ridge project in the first place. When you follow the money trail one sees that the "old boy" system is alive and well here in town. Corruption is more open on the small scale than in D.C.

FirstWind uses a software program called WindPro in its evaluation of sites. I question its accuracy. FirstWind will claim they allow for error and err to the safe side giving a buffer in case of anomalies or circumstances beyond their control. Supposedly on the conservative side may not always cover every circumstance.

Mars Hill was supposed to have a 45 db noise limit at night. According to the computer model the nighttime sound should never have exceeded 45 db. Now after the towers are installed the noise routinely exceeds 50 db and residents report up to 70 db at night. The DEP wrongly gave FirstWind a 50 db nighttime level max and FirstWind cannot even meet that. How can we believe any scientific data supplied by FirstWind? Even if the computer modeling was correct there is the human factor to consider. If the boss wants a project then the computer programmer damn well better make things fit or the boss will find someone who is willing to make the adjustments. Anything to get these turbines in the ground and spinning to reap tax incentives and subsidies. Now along with the faulty data for sound traveling over land are fictional "studies" of computer models of sound traveling over water. I will bet that these noise levels will be even further out of spec than the noise levels at Mars Hill. The DEP must test and verify FirstWind's data as the noise levels at Mars Hill show that FirstWind is not to be trusted to provide accurate data. We need the DEP to double or triple check what I consider to be a company prone to unacceptable business practices. If the DEP is underfunded or understaffed then you must deny FirstWind's application. I am confident if you check FirstWind's data you will find it is not accurate. It sounds good and the charts and graphs are nicely colored but the aim is to slide it by the DEP without too many questions. They want a pass and hope the DEP will not look too hard.

Another aspect of these wind monstrosities is the vibrations they are driven into the ground and air. Dylan Voorhees of the NRCM stated the primary fawna at risk are birds and bats. Who decided birds and bats are any more ecologically important than moles, rabbits, bobcats, lynx, mink, otter or marten? I am enclosing an ad for a small windmill which is claimed to drive moles away for a diameter of 100 feet. This windmill is only 8 feet tall. If the nearly 400 foot tall windmills have a similar effect moles will be impacted and driven off for about 1 mile. What ecological impact would that have? Computer modeling may give an answer but you can bet it would amount to no more than a ballpark

guess. Better than a guess with no data but it could be way off in the field. That does not cut it when the price we pay is so high. Miles of devastated woods and hills with altered ecosystems polluted by noise and vibration is not acceptable. Substituting questionable CO_2 reductions for pollution of three other types is not progress. The third type is visual pollution which the DEP probably does not consider. Proponents will say "beauty is in the eye of the beholder" to which I reply "some fools thought Charles Manson was God too". The vibration and noise carry underwater also as there are several lakes nearby. Is there any believable data concerning this? Can we believe whatever computer modeling data are thrown at us? NO! I would appreciate the DEP doing some good old fashioned scientific research and supplying reliable accurate data before permitting these windscammers to build anywhere near Maine's lakes. We are depending on the DEP to protect Maine from corporations who simply don't care.

At the recent NRCM propaganda fest at MA one fellow defended the Mars Hill project saying it was already ruined by cell towers and radio towers and had a ski area so the area was not pristine anyway. R. Chayters of FirstWind told me also that Rollins Ridge was not pristine. He said it had been cut hard by Haynes and Gardner. My reply was that it may have been cut hard as there seems to be no oversight concerning these two logging outfits, but the land would recover over time. There are no cell towers or radio towers and the nearest ski hill is 10+ miles away. There may be a couple small hunting camps in the area. The Rollins Ridge is certainly an asset if left alone providing habitat and recreational opportunities for a lot of people. The peace and quiet of the area lakes are a valuable asset. More people are doing low impact recreation than ever before and Lincoln's lakes need protection. Nobody wants to go to Upper Pond, for instance, anticipating a quiet day of paddling and be forced to listen to the unrelenting whooshing of windmills and seeing no wildlife because the vibrations have driven them away. I can hear FirstWind's excuses now. Well, we were in compliance but uh... some unforeseen circumstance must have amplified the vibrations and noise....uh... you could take a boom box with you and turn it up loud...Real concerned guys. I am reminded of the FirstWind rep whom I asked at the Lee info meeting in August, " Are there any noise complaints from the people at or near Mars Hill?'' "Oh gee none that I am aware of" was her reply. She checked with another rep who affirmed her reply. That is what you at the DEP will deal with, less than honest representation by wind proponents. Forwarned is forarmed. Please do not let them slide anything by you. The State of Maine and our lakes and woods deserve the maximum protection.

Thank you.

Sincerely,

Mike DiCenso
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