

Testimony before the Land Use Regulatory Commission

June 27, 2011 at Lincoln, ME

Re: Bowers Wind Project, Champlain Wind LLC, Development Permit DP 4889

My name is Betsy Fitzgerald and I represent the Washington County Commissioners as the County Manager. On their behalf, it is my charge tonight to report to you their enthusiastic support for development of a wind energy facility spanning the Penobscot and Washington County boundary; most particularly the portion of the project in Kossuth Township in Washington County.

Three weeks ago the *Maine Sunday Telegram* featured a commentary by former Governor Angus King titled "Energy Choices and the No Free Lunch Principle". King wrote: "The truth is that we face a stark reality in energy. Either we stay addicted to oil or go find alternatives... which means ...change and choices. "

Governor King went on to say: "The first part of the answer is to remember the TANSTAAFL Principle. That stands for: There ain't no such thing as a free lunch... What people have to realize is that by saying no to one form of power, they are saying yes to something else. Whichever energy option we choose will have some economic and/or environmental trade-offs."

Washington County is a vast area, all 2500 square miles of it. Washington County may have the highest unemployment rate and the lowest median incomes, but it really has a premium location with regards to wind. That wind, a renewable resource, has the potential to provide a viable alternative power source, especially when compared to fossil fuels. Already, wind turbines generate kilowatt hours at the adjacent projects Stetson I and II.

This new project, to be located in part in Kossuth Township in Washington County, is a logical expansion. The Washington County Commissioners are unanimous in their support for the new turbines in Kossuth. Back to Governor King – "...wind brings with it the first major investment in Maine in the past 15 years. And with this investment come hundreds of construction, engineering, and operation and maintenance jobs, a huge increase in the local tax base and a much-needed economic stimulus to Maine's rural areas. First Wind reported in their informational packet presented to the Washington County Commissioners this past month that: "...of approximately \$65 million spent for construction, engineering and development services, about \$50 million was spent in Maine." Those are real dollars for the State and Washington County.

Governor King went on: "Wind isn't the whole answer...but it should be part of it because it's a resource we have here, in Maine. I don't think wind power is perfect; I just think it is a lot better than the other alternatives." So much of decision-making is weighing the alternatives and choosing the least obnoxious one. Wind may be costly to build but it is essentially free to operate. Over time wind will become viable and a good alternative and that why the Commissioners support it.

Thank you for your attention and I would be pleased to try and answer any of your questions.

I would like to believe that the proponents of wind turbines in rural Maine are right minded, that is, they have the good of all of us as a goal. By all of us, I mean all sentient beings including those sometimes referred to as inanimate, as if it is possible that something could not have a spirit or soul; that First Wind or its subsidiaries are not just in it for the money; that Reed and Reed workers are busy doing things that will benefit all of us and not just picking up a paycheck and the devil with whomever objects; that the politicians and ex-politicians involved are not just helping out old buddies and new employers, but are sincerely trying to "reduce" greenhouse gases, and our dependance on foreign oil; that the landowners, as good stewards of the land, feel good about contributing to an energy secure future, and not just salivating over the steady flow of cash they will get for their generosity; that those who feel that it's the people's right and in their best interest to do whatever they want with their land, and have given careful thought to what this could mean to abutters, to tourists, to future generations; that oldsters who will remember the pristine wilderness of Maine have not ignored the time when today's youth, grown tired and bored by facebook and cell phones, might well appreciate the experience of a walk in the pristine woods as they get their act together.

Somehow I feel that all of the above, that is, all of us have been lulled into a non-questioning dullness and have succumbed to the idea that THEY know what's best for us, and therefore have no time to see what the effects of wind turbines already deployed on our mountaintops and ridges have on the production of truly needy green energy, and to reflect on the effect that these industrial wind sites have on our psyches? Is it possible to live without beauty? Ask anyone who lives in an area degraded by industrial sites erected for self-interest instead of the good of all. Those who can, quickly, move elsewhere, leaving the rest behind.

Besides not taking time to see what good will come out of this sort of project, why have not other sites for renewable energy been considered? Town dumps, or transfer stations, for example, or as several people have done, smaller wind turbines that could be erected on one's own property? Companies could find ample work here without degrading our mountains.

One last thought. Endless growth is not natural, whether in our own bodies, or in the general fabric of life on our planet. Perhaps it is time to scale back, rid ourselves of the idea that we are consumers, and latch on to the idea that we are members of a delicate web of life, endlessly revealing to each other the breathtaking beauty and wonder of our

planet. Francis of Assisi once described the beauty of a scaled back life -- he fell in love with Lady Poverty. Not the wretchedness of being hungry, cold, or homeless, but the satisfaction of coming to a giant buffet, and taking only what you need so that others could have their share.

So in considering this project, I would ask:

1. Why not take lots of time to see what good, if any, has come out of industrial wind sites already erected?
2. Why not consider alternative wind sites?
3. Why not reconsider the notion of progress? Maybe we might be a more satisfied and less bored and contentious people if we had a simpler lifestyle that we could all share?
4. Lastly, is it possible that we still believe that these turbines will free us from our dependence on Middle Eastern oil when we are fighting several wars so that the likes of Halliburton and the oil companies can get their hands on that oil? Have we not committed ourselves to get the last drop of that oil wind turbines or not?

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Hello – my name is Bob Pelletier, I currently live in Connecticut but I was born in Portland Maine and my parents were from Van Buren Maine. I have been coming to the Grand Lakes area since I was teenager when my aunt and uncle bought a camp on Bottle Lake; their family still owns that camp. My wife and I bought our camp on Keg Lake about 28 years ago. That translates to about 50 years of personally experiencing the Grand Lakes area.

We spend a couple of months at camp every summer and as my retirement approaches we plan to spend more time here. I have been hearing about the proposed wind towers for a long time and have been dreading the sight of them, but I did not realize just how much until this week. When we closed camp last fall there were no wind towers visible on our ride home. And as we arrived on Sunday, in the rain, there were still no wind towers visible. However, on Monday morning as I drove along Route 6 from Lakeville to Lincoln, after passing through Lee, I came over a ridge and suddenly there were huge wind towers in view. When I drove to the hearing last night I realized that the towers were visible as soon as I turned on to Route 6 from Bottle Lake Road in Springfield and I continued to see them as I came over each and every ridge. I checked Google Maps to see how far away the towers are from Bottle Lake Road and found that the distance is 15 miles. FIFTEEN MILES – these towers are visible FIFTEEN MILES away, and I understand the towers proposed for Bowers Mountain will be even taller.

That only describes the daytime views. When I was returning back to camp last night I took a small back road that leads to Route 6 and I experienced what the night view will be like. As I drove I saw a long string of red lights that totally overwhelmed the view. Many folks have spoken about what we like to call the “Maine Sky”. There are only a few places left in this country where one can experience the unbroken darkness that is offered by a Maine Sky. The red lights that I saw last night totally destroy the peace and serenity of the gorgeous Maine Sky.

In closing I’m going to paraphrase some lyrics from the song A Big Yellow Taxi that was written by Joni Mitchell that I would like you to think about ...

Mitchell said (from a 1996 interview with the Los Angeles Times): "I wrote 'Big Yellow Taxi' on my first trip to Hawai'i. I took a taxi to the hotel and when I woke up the next morning, I threw back the curtains and saw these beautiful green mountains in the distance. Then, I looked down and there was a parking lot as far as the eye could see, and it broke my heart... this blight on paradise. That's when I sat down and wrote the song."

In Joni’s version she said

They paved paradise and put up a parkin' lot
 With a pink hotel, a boutique, and a swingin' hot spot
 Don't it always seem to go
 That you don't know what you got till it's gone
 They paved paradise and put up a parkin' lot

In my version I would like to believe you will prevent this from happening

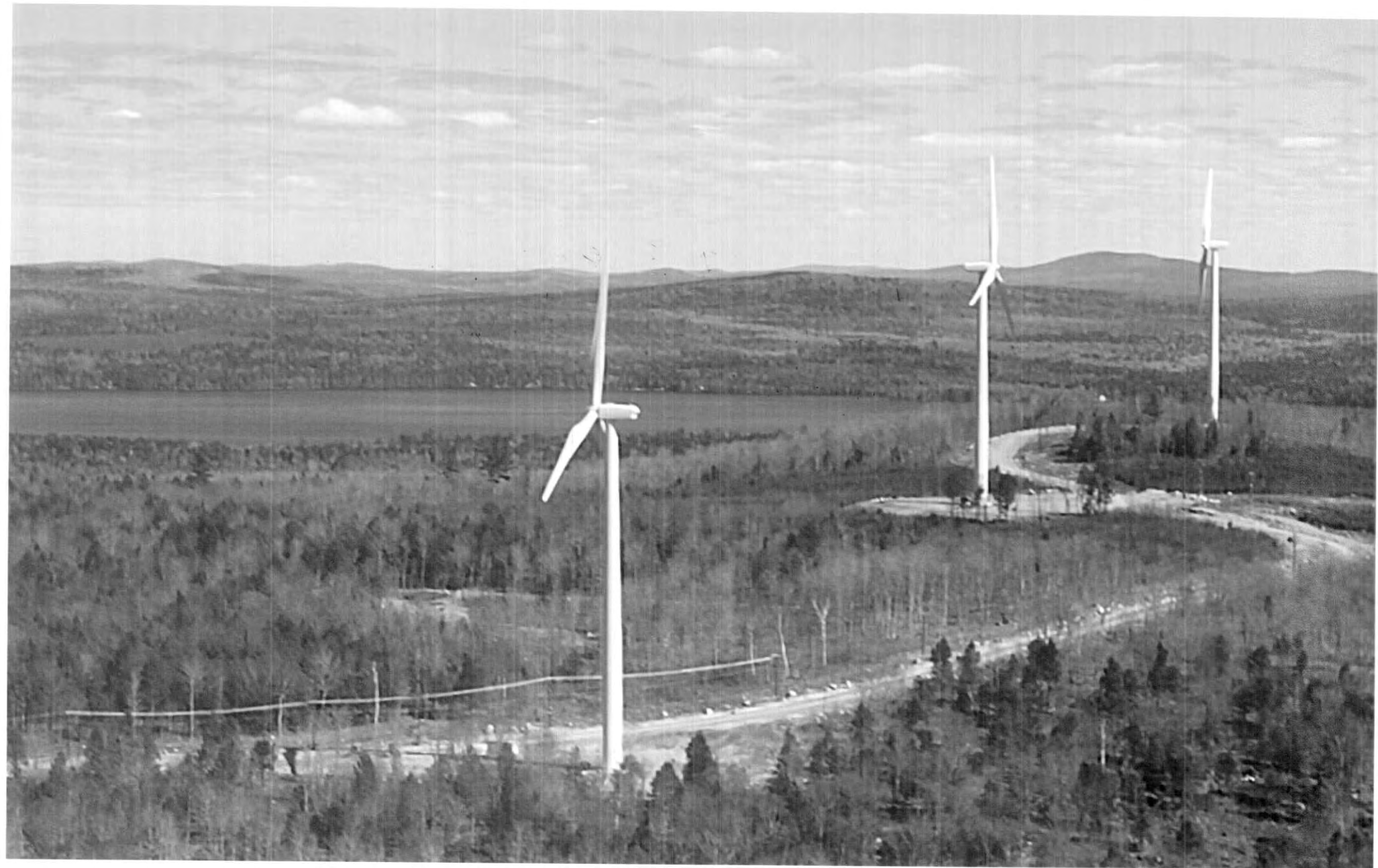
They **shaved** paradise and put up some ugly blots
 With lots of tall towers, nude forests and blinking red spots
 Don't it always seem to go
 That you don't know what you got till it's gone
 They **shaved** paradise and put up some ugly blots

YOU DON'T KNOW WHAT YOU'VE GOT TILL IT'S GONE!

Bob Pelletier
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Brian Hoops – June 27th, 2011

6/27/11 2:50 PM

My name is Brian Hoops and I am a dentist in Baileyville. I also have a camp on West Grand Lake. I am not here to be anti-business or to be anti-corporation. I am a business man myself and I own a corporation. As a member of the Baileyville Planning Board, I participated in the drafting of the Baileyville Comprehensive Plan.

Wind facilities that have been built in Maine have shown about a 20% efficiency. They have cut vast swaths of forest and have been placed, necessarily, in highly visible places atop mountains. The Maine State Legislature has supported this.

Zoning laws and comprehensive plans are in place in order to avoid just this type of development. That is, policies which have been "rushed" through the legislature in areas which have little or no political clout. The Bowers Mountain facilities will be visible from many previously secluded lakes. Sporting camps, guides, camp and land values, and other ancillary businesses will be negatively impacted by this project. It is my belief that fisherman and nature lovers will not travel here if they must view sunsets through a maze of windmills. Many people who come to this area, come to escape the all night, red, blinking lights of home.

As a camp owner, I am not allowed to even paint my camp yellow or red, much less have a blinking light fixed to my roof. A roof, by the way, which cannot exceed a height of 25 feet – quite a bit shorter than the ~~height~~ height of ~~the~~ wind turbines. The reason that these color and height regulations have been put in place is to keep the Lake's character so that all can enjoy its natural state.

I am all for letting people do what they wish with their land, as long as it does not negatively impact their neighbors, especially economically. I am convinced that these windmills will be dismantled in 10 – 20 years when it is realized that they are just a "Potemkin Village" of energy. But in the meantime, this area will suffer – not just residents and visitors, but wildlife as well, including bald eagles.

Please do not let this project continue.

Thank you.

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**LAND USE REGULATION COMMISSION
In the Matter of Development Permit, DP 4889
Bowers Wind Power Project**

**Testimony of Catherine B. Johnson on behalf of
the Natural Resources Council of Maine
June 27, 2011**

My name is Cathy Johnson. I am the North Woods Project Director and Senior Staff Attorney for the Natural Resources Council of Maine. I have been with NRCM for over two decades. I am here today on behalf of NRCM's 12,000 members and supporters to testify Neither For Nor Against the proposed project, but rather to provide information and comments which NRCM hopes the Commission will consider as it deliberates on this project. We appreciate the difficult but very important role you play in translating a vision of maintaining the jurisdiction into specific decisions like this one on Bowers. Thank you for your service in this work.

Summary

NRCM is a strong supporter of both protecting the scenic and recreational resources of the state and developing renewable energy as one part of a strategy to limit climate change. We believe that the combination of the recently enacted wind power law and LURC's guiding statutes indicate that the State is also committed to both of these goals.

After reviewing the proposed Bowers project, we have concluded that it is a very close call whether the proposed project meets the legal criteria regarding the effect of the proposed project on scenic character and related existing recreational uses. We agree with Jim Palmer that, based on the information available, it appears that there will be very adverse impacts on some scenic resources and related existing uses of statewide significance and adverse impacts on other scenic resources of statewide significance and related existing uses.

In determining whether the adverse impacts are "unreasonable" or "undue," it is important to consider the energy and climate benefits. It is this weighing of the adverse impacts to scenic and recreational resources against the benefits to our energy supply and climate that should lead you to the decision whether or not this project meets the criteria for approval. We are providing information we hope will be useful as you weigh these issues, but we are leaving the ultimate determination of whether the adverse effects outweigh the benefits, or not, to you.

Energy and Climate Context

It is important to remember the purpose of wind power and renewable energy generation in Maine. Maine and the region continue to be over-dependent on fossil fuels for power, a situation which is unsustainable both economically as well as environmentally. The impacts of our dependence on gas, coal and oil may be out of sight much of the time, but they are clearly harmful and unsustainable to all living things and must not be out of mind. Climate change is one of the most dramatic negative effects of continued fossil fuel use, and will cause sweeping harms to Maine's

forests, coasts, fisheries, wildlife, public health and physical infrastructure. Here are two examples of this threat to Maine:

Just this month the National Science Foundation issued a report finding “The rate of sea level rise along the U.S. Atlantic coast is greater now than at any time in the past 2,000 years—and has shown a consistent link between changes in global mean surface temperature and sea level.” Report co-author Michael Mann said the new research “points toward projected sea level rise lying at or near the upper range of current projections, more than a meter [3.3 feet] by the end of this century under business-as-usual carbon emissions.”¹

In 2002, a report entitled *Effects of Global Warming on Trout and Salmon in U.S. Streams* concluded “We find that trout and salmon habitat is indeed vulnerable to the effects of global warming. Based on emissions scenarios from the Intergovernmental Panel on Climate Change (IPCC), we estimate that individual species of trout and salmon could lose 5-17% of their existing habitat by the year 2030, 14-34% by 2060, and 21-42% by 2090, depending on the species considered and model used.”² These dates may sound like a long time away, but they are well within the lifetime of children now alive in Maine; children who may see Maine’s coastline re-written and 1/3 of trout stream habitat lost if society cannot change paths.

We must transition to a cleaner, more affordable future through several simultaneous policies, from energy efficiency to additional use of renewable energy available here in Maine. We have examined the impact of wind power in displacing pollution and fossil fuel energy, primarily natural gas, at great length—the simple conclusion is that wind power can play an important role in displacing these fuels and reducing pollution levels. There is no comprehensive assessment of Maine and the region’s climate and pollution mitigation strategy that does not include a significant amount of new non-emitting electricity generation. Where will that electricity come from? Nuclear? Solar? Biomass? New ocean renewable sources? Each may be important and each has trade-offs. Solar power remains expensive at grid-scale; tidal power is appealing but limited in scope; biomass generation has both air emission and affordability challenges. Wind power is one of the most cost-effective and abundant renewable energy sources in Maine and the region, though it sometimes must still struggle to compete with traditional sources of energy, such as oil and gas, that we have collectively subsidized and invested in for generations. The need to develop clean energy is obviously important but it does not automatically trump other needs—hence the need for balancing with conservation goals.

Wind Power Siting in Maine

Maine has taken some important steps to guide the development of appropriate wind power development, including by designating about 1/3 of LURC jurisdiction as “expedited” for wind power. It was clearly not the intention of the Governor’s Task Force on Wind Power nor the legislature for permitting authorities to give a rubber stamp to every wind project simply because it was proposed in the expedited area. In fact, the statutory criteria for receiving a development permit remain relatively similar to other forms of development.

7.2 million acres of LURC, which includes just over half of the identified windy land in the state, is outside of the expedited area. Within the expedited area, wind project locations are not only

¹ Kemp, Andrew et al. “Climate related sea-level variations over the past two millennia.” Proceedings of the National Science Foundation. 2011.

² O’Neal, Kirkman. “Effects of Global Warming on Trout and Salmon in U.S. Streams.” Defenders of Wildlife & National Resource Defense Council. 2002.

constrained by wind power generation issues (such as the wind resource and transmission access), but by proximity to homes, impacts to sensitive wildlife and habitat, and impacts to scenic resources of statewide significance. Avoiding all conflicts is impossible, which reflects the fact that there are no easy choices for energy.

Recently the Appalachian Mountain Club published further analysis of wind power sites in Maine in order to identify areas with greater or fewer conflicts.³ They identified 268 windy areas (mainly ridgelines) in Maine (not including Bowers) and ranked roughly 70 of those to be among the most suitable sites, given a wide range of environmental constraints. All 70 had some predicted adverse impacts, and the large majority (52) of them were within 3 miles of a scenic resource. 30, or nearly half, of these more preferable sites were within 3 miles of 2 or more scenic resources of statewide significance. On the other hand, only 10 of these 70 more preferable sites were within three miles of *four* or more scenic resources. Proximity is not the same as impact, much less undue adverse impacts, for many reasons. However this analysis reminds us that wind power sites must meet multiple criteria for environmental and existing use impacts within a constrained world, and there are few, if any places, where no conflicts occur.

While Bowers does not have many of the potential conflicts that other wind sites have or may have: noise, wildlife habitat, high elevation, or long-transmission lines and is part of a semi-cluster of wind development, the impacts on scenic resources and related existing recreational uses are significant. Within the context described above, we urge the Commission to give careful consideration and due weight to these resources and impacts.

In joint comments submitted by NRCM and others regarding the potential addition of the Kossuth portion of Bowers into the expedited wind zone, we wrote “The proposed area lies at the very northern edge of a large area around the Downeast lakes that was intentionally excluded from the expedited area because it represents a broadly treasured landscape with significant conservation values—where wind development was not appropriate for any expedited review. We continued: “The primary issue that must be considered by the Commission is the close proximity of the proposed expansion area to Pleasant Lake, a Great Pond with outstanding scenic value as determined by the Maine Wildland Lakes Assessment. The presence of Pleasant Lake was one of the reasons the southern portion of Kossuth Township was excluded from the expedited permitting area. There are also several other Great Ponds with statewide scenic significance within eight miles of the proposed area, and conserved and public lands in the vicinity.” We concluded: “We do not believe that the proximity of the proposed expansion area to Pleasant Lake, West Grand or Junior Lakes is sufficient grounds to reject the petition. In this case, the scenic impact of any proposed project can be evaluated during the development permit stage, when the impacts of the project in its entirety can be considered.” LURC has now arrived at that point where we must make a fuller and more detailed analysis.

Significance of the Potentially Affected Scenic Areas

The areas of state or national significance that will be affected by this project include nine lakes with scenic resources of statewide significance. Table 1 in the applicant’s VIA lists eight lakes, their status as significant or outstanding scenic resources, their distance from the turbines and the number of turbines visible within eight miles.

³ Publicover, David A., Kimball, Kenneth D., Poppenwimer, Catherine J.: Ridgeline Windpower Development in Maine: An Analysis of Potential Resource Conflicts, Appalachian Mountain Club, 2011.

This table fails to include Pug Lake, the northern most section of Junior Bay (which is the western part of West Grand Lake.) This is an additional outstanding scenic resource which will be adversely affected. According to the applicant's Exhibit 4, Viewshed map, up to 27 turbines will be visible from this lake.

Four of the nine lakes, including one with outstanding scenic resources, are within 3 miles of the proposed turbines. The other five lakes are within eight miles of the turbines.

The applicant indicates that Pleasant Lake is a Management Class 2 lake, while Palmer suggests it is a Management Class 7. It is our understanding of LURC's classification system that it is a Management Class 2.

There are three public lots within eight miles of the turbines, all of them within the Town of Lakeville. While two of them apparently have no views of the turbines, one of them, the 890 acre Keg Lake lot has frontage on both Keg and Duck Lakes. This lot includes the historic canoe portage route between Keg and Duck Lakes. The land surrounding the portage has been designated by BPL as a remote recreation area and there is potential for development of campsites and boat launch sites. (BPL's Lakeville Lots Management Plan, p. 108-110.) According to information provided by the applicant, between 10 and 18 turbines would be visible from the publicly owned shoreline on the southwest shore of Duck Lake.

Both the applicant and Palmer underrate the significance of the nine lakes with significant or outstanding scenic resources; neither the applicant or Palmer discuss the use of the region for multi-day paddling by either family and friends or by youth camps at all. These lakes are the northern portion of one of the largest interconnected lake systems in the east that provides opportunities for multi-day loop canoe and kayak trips in a remote environment. The Appalachian Mountain Club's lake canoeing guide, Quiet Water, describes this loop as "one of the best extended quiet-water loop trails in the state, especially when one detours for a few days into Scraggly Lake." (See Exhibit A, attached, p. 153.) Scraggly is described: "Wild and remote, this is the paddler's ideal lake: too shallow for most motorboaters and far enough from road access that you have to do some work to get here."

In this lake system, you can paddle for multiple days, camping at primitive campsites on the shorelines and on islands; DeLorme's Atlas shows at least eight sites within eight miles of the proposed project, and there are an unknown number of others. Sysladobsis, Bottle, and Pug/Junior Bay are part of the main loop trail; Pleasant, Scraggly, Shaw, Duck, Keg and Horseshoe are a short portage or paddle off the main loop or on the longer one way canoe trail that heads north and are wonderful places for paddlers wanting to explore quieter places. One may have to travel to the Boundary Waters in Minnesota to find as large a lake system with multiple opportunities for loop paddling and near by quiet lakes to explore. The jagged shoreline and coves of Scraggly, Shaw, and Pleasant are great places to look for wildlife and enjoy the wilderness character of the region.

The pre-filed testimony of Mr. Raphael on behalf of the applicant demonstrates some flaws and bias in the treatment of these scenic resources. For example, on p. 9, Raphael states that "only eight" resources of statewide significance have visibility of the project. According to LURC's Wildlands Lakes Assessment, there are only 100 lakes and ponds in LURC jurisdiction with outstanding or significant scenic resources of statewide significance. We are unaware of any other wind project proposed in Maine that had *as many as* eight scenic resources with visibility (and in this case, it is actually nine, not eight.) No one's analysis should turn on the number of resources, but this is an example of inappropriately devaluing the impact. Similarly, on p. 23, Raphael suggests that one of the lakes just barely scored enough points to be considered of "outstanding" scenic

significance. Given that only 73 lakes out of the 2635 lakes and ponds in LURC jurisdiction have been designated as outstanding scenic resources, we hope that LURC is less willing to discount this distinction, which belongs to so few Maine lakes. Perhaps most troubling, on p. 17, Raphael attempts to downplay the significance of these resources and the scenic impacts on them by saying this is a “working landscape” not a “pristine” one, and contrasting the view (unfavorably) with that of Mt. Katahdin. As LURC Commissioners well understand, most of the North Woods is a working landscape, not pristine wilderness. Limiting a finding of unreasonable adverse impacts to pristine landscapes or unique scenic vistas like Katahdin would be inconsistent with the law and insufficiently protective of the other places in Maine with high scenic and recreational importance.

The significance of this area for remote recreation has been broadly recognized through the extensive land conservation activity that has taken place in the region in the last decade. The Downeast Lakes Land Trust and the New England Forestry Foundation, along with other conservation partners, have spearheaded conservation that has resulted in 350,000 acres of conserved land around the downeast lakes. Some of this conserved land is included in the Sunrise Forestry and Public Access easements. Easement lands within eight miles of the Bowers Project include land surrounding Pleasant and Pug Lakes, about three quarters of the shoreline of Scraggly Lake and the southeastern shore of Junior Lake. The easement land immediately abuts the proposed wind project, and is located within one mile of proposed turbines. (See Exhibit B, Map of Conservation Lands and Key Recreational and Scenic Resources within 20 miles of Bowers Wind Project.)

Almost \$35 million of federal, state and private conservation funds have gone into this project already, and conservation efforts continue. The significance of the region is further enhanced by the current conservation project on West Grand Lake which was the number one priority conservation project in the country for the federal Forest Legacy Program this year and which just recently was awarded \$6.6 million dollars from the federal government. This is clear evidence that the applicant’s assertion that this is not an area of “regional or national importance” is simply wrong. Although the current West Grand Lake project is more than eight miles from the Bowers project, it is an integral part of the overall conservation effort which includes lands within eight miles of the turbines.

The conservation easement project was initiated by local guides who want to maintain the beauty and existing natural character of the region, including the areas within eight miles of the Bowers project. This naturalness is crucial for their guests and therefore for their own livelihood. The easement notes that one of the purposes of the easement to “conserve and/or enhance...historic public recreation opportunities.” It also notes that it “provides and maintains a predominantly forested area” for recreational uses and that it “maintains a natural resource base for a tourist-based economy and corresponding employment opportunities.” (Typhoon LLC Easement, p. 2 - 3.)

Existing Character of Surrounding Area

All of the lakes are surrounded by relatively flat terrain, with some rolling hills. Because of the relatively flat terrain, the hills which do exist, including Almanac, Bowers and Dill Hill, are quite noticeable to lake users. As the applicant noted, users of those lakes which have views of Bowers and Dill, would see many of the turbines. Users of Bottle Lake would see 13 turbines, but users on the other eight lakes with visibility of the project would see between 18 and 27 turbines. The entire area is under active forest management.

The character of the individual lakes varies. While all nine lakes would have views of the proposed turbines, some of the lakes have seasonal camp development on parts of their shorelines

while others do not. Three of the lakes, Pleasant, Scraggly and Shaw have no residential development (although Pleasant has a wilderness lodge.) When you are on these lakes, you have a real sense of remoteness.

On the other end of the spectrum, Bottle and Duck both have a number of camps and have a less remote feel. They serve as “entry” lakes into the larger lake system; many paddlers will move quickly through those lakes so that they can linger in more remote places like Scraggly.

In between these two groups are Keg Lake, which is small but has only a few camps, and Junior and Sysladobsis Lakes which have a larger number of camps, but the lakes are much larger, many of the camps are screened with vegetation, and large sections of the lakes are undeveloped. Despite their shoreline development, these three lakes still provide an experience of generally undeveloped naturalness for paddlers.

Expectations of Typical Viewer

There are clearly a number of different types of users of these lakes. The applicant focuses on motor boat users and fisherman. But in addition to those users, there are multi-day paddlers.

Multi-day paddlers who come to these lakes, if they have done their homework in advance, will know that Scraggly, Shaw, and Pleasant Lakes are undeveloped, and will be in search of a remote wilderness experience. Guide books and web sites provide information to potential paddlers. One of the reasons people will travel long distances into the heart of the Downeast Lakes is precisely to find that remote wilderness experience. If people are simply looking for places to paddle on beautiful lakes where there is evidence of man-made structures, Maine provides many, many choices. But lakes that are undeveloped and interconnected, and that provide opportunities for multi-day loop trips in a remote setting are rare.

In Palmer’s June 17 Peer Review of the report prepared by Michael Lawrence and Assoc. on behalf of intervenor PPDW, he criticizes the MLA submissions from the web site marketing literature of area sporting and lodging facilities including testimonials from visitors, sporting camp owners and professional sportsmen writers as not being representative of “typical viewers.” (Palmer, June 17, 2011, p. 4.) While it is true that they do not represent a statistical sample, we disagree and find the sources cited to be highly representative of the views of typical users. If those who have personally visited the area and those who have run businesses for decades that market to potential users and provide hospitality and guiding services to those who come do not understand the expectations of “typical users,” it is hard to imagine who could. The applicant has presented a more statistical survey of viewer expectations, which has also been rightly critiqued. Unfortunately there is no perfect statistical data on expectations of viewers that relates to potential wind farm impacts—therefore the Commission will need to consider the accumulation of other data points, which include the testimonials submitted by MLA.

Nature, extent and duration of uses

The lakes within eight miles of the proposed turbines are used by multi-day paddlers and youth camps on a regular basis during the open water season. Trips in this region can last from two days to a week or more, depending on the paddler’s interests. One could spend several days in Scraggly Lake alone, exploring the twenty miles of “highly varied shoreline... along marshy coves and undeveloped islands.” (*Quiet Waters*, p. 166.) The more remote sections of most of the lakes provide opportunities for lots of wildlife watching. The fact that this is one of the most highly recommended areas in the most commonly used lake canoe guide for Maine attests to its importance.

If the character of this area is changed from one with opportunities for remote multi-day paddling, to one with multi-day paddling in the constant presence of man-made structures, many of those paddlers seeking a wilderness experience will undoubtedly go elsewhere – although that may mean going out-of-state. If these lakes lose their remote characteristics, they will become lakes like many others in Maine, many of which are more easily accessible, and there will be no reason to travel long distances to reach these lakes.

The applicant points to the Baskahegan study as evidence that the turbines cause no adverse impact. However, the Baskahegan study was not well structured to report on experiences and perspectives from those users who have abandoned the area and gone elsewhere to seek more remote experiences. Pre-filed testimony by Louis Cataldo is evidence that there are at least a few such users. The unstructured interviews with several long-time users of Baskahegan Lake may provide some insights. For example, the study, and more anecdotal evidence, suggests that there may be a difference between wind development and shoreline residential development in terms of negative impact on scenic character of lakes such as these. However more research and analysis is warranted on this subject before any conclusion can be reached, and even then those conclusions may be relatively site-specific.

We agree with Palmer that the snowmobile study conducted by the applicant does not add much new information to this proceeding. It was a group that had already self-selected itself as being tolerant of the wind turbines—around Bowers as at other wind projects in Maine.

It is important in reviewing the amount of use that a lake receives not to necessarily translate high use into a conclusion that the lake is more important and low use into unimportance. Lakes that are prized for their remote wilderness experience, almost by definition, will have lower use. Low use can be a valued characteristic of a wilderness area, not an indication of lack of importance. And the inverse can be true. For example: while we did not take a position on the project, in our internal review of the Saddleback wind project proposed near Webb Lake in Weld, we noted that the impacted lake is very popular for recreational use and more developed. It is important in its own ways, but not as one of Maine's more remote-feeling lakes.

It is interesting to note that all three of the local people the applicant interviewed regarding use in the lakes indicated that there are more paddlers on the lakes now than there were in the past. This could indicate the increasing rarity of the type of experience offered by these lakes.

Scope and Scale of the potential effect of views of the generating facilities

The nine lakes from which the proposed turbines will be visible will all have extensive views of the turbines. As mentioned above, a large number of turbines are visible from each of the nine lakes.

We generally agree with Palmer's rating of overall scenic impact from the proposed project. (Palmer, Table 8, p. 62.) We also agree with his assessment that the scenic impact to scenic resources with state significance will be "Adverse at some locations and Very Adverse [at] others." (Palmer, p. 63.)

Not coincidentally, those lakes where the impacts will be "Very Adverse" are those lakes with currently the most wilderness character (Scraggly, Shaw and Pleasant.) Two of these lakes are less than 3 miles from the proposed project and one is just over three miles. Large man-made structures will significantly impact the remote paddler's wilderness experience in these lakes.

The rest of the lakes will have Adverse effects that range in severity. Due to the more developed nature of both Bottle and Duck Lake, the impacts will be less severe.

We strongly reject the applicant's Evaluation Matrix and attempt to assign a numerical value to overall scenic impact and agree with Palmer that it is "unworkable." (Applicant's VIA, Table 2, Evaluation Matrix, p. 40; Palmer VIA, p. 23) It is stunningly simplistic.

The applicant's matrix treats each criterion equally when evaluating a scenic resource, when clearly some factors (i.e. significance) may need to be given greater weight than others. Therefore, the overall scenic score for each resource (lake) is flawed.

That flaw is compounded when the applicant then averages the scores for all scenic resources within eight miles (including those which have no visibility and therefore no impacts) and creates an "overall project impact" scenic score. Averaging the flawed scores of all of the lakes leads to an even more flawed "overall project impact." Averaging the impact on a highly impacted resource with one that has no impact, leads to an average numerical impact but in no way represents the impact of the project on the resources that are actually affected.

Conclusion

Although we agree with Palmer's conclusions in many respects, both Palmer and especially the applicant's consultant and witness, Landworks, have an inappropriately narrow view of the significance of these scenic resources in the context of the LURC jurisdiction. They largely ignore non-motorized and non-fishing uses (which are more difficult, but not impossible, to characterize), do not consider how the resources may fit together as a whole, and fail to place the character and significance of these resources within the context of other scenic Great Ponds in Maine.

Determining whether the proposed project will have an "unreasonable adverse effect on the scenic character or existing uses related to scenic character of the scenic resource of state or national significance" requires weighing and balancing a number of factors, only a few of which we have addressed in our comments today. Given these factors and the context for wind power, we do not offer you a final conclusion on whether or not the project should be permitted. As you decide the ultimate question of whether the project meets the required legal criteria, we encourage the Commission to keep in mind both the potential benefits provided by, and overall need for, a source of clean, renewable energy and the specific adverse impacts that would be caused to nine significant or outstanding scenic resources of state significance and existing uses of those resources.

Thank you for your attention.

Exhibit A

APPALACHIAN MOUNTAIN CLUB

Quiet Water

Canoe Guide

Maine

BEST PADDLING LAKES AND PONDS FOR ALL AGES

Alex Wilson and John Hayes

Pocumcus, Junior, and Sysladobsis Lakes

T5 ND BPP and T5 R1 NBPP

MAPS

Maine Atlas: Map 35

USGS Quadrangles: Dark Cove Mountain, Scraggly Lake, Bottle Lake, and Duck Lake

INFORMATION

Physical information:

Pocumcus Lake area: 2,201 acres; maximum depth: 44 feet

Junior Lake area: 3,866 acres; maximum depth: 70 feet

Bottle Lake area: 281 acres; maximum depth: 42 feet

Sysladobsis Lake area: 5,376 acres; maximum depth: 66 feet

Prominent fish species:

Pocumcus Lake: white perch, salmon, and smallmouth bass

Junior Lake: salmon, smallmouth bass, perch, and chain pickerel

Bottle Lake: brook trout, salmon, smallmouth bass, perch, and chain pickerel

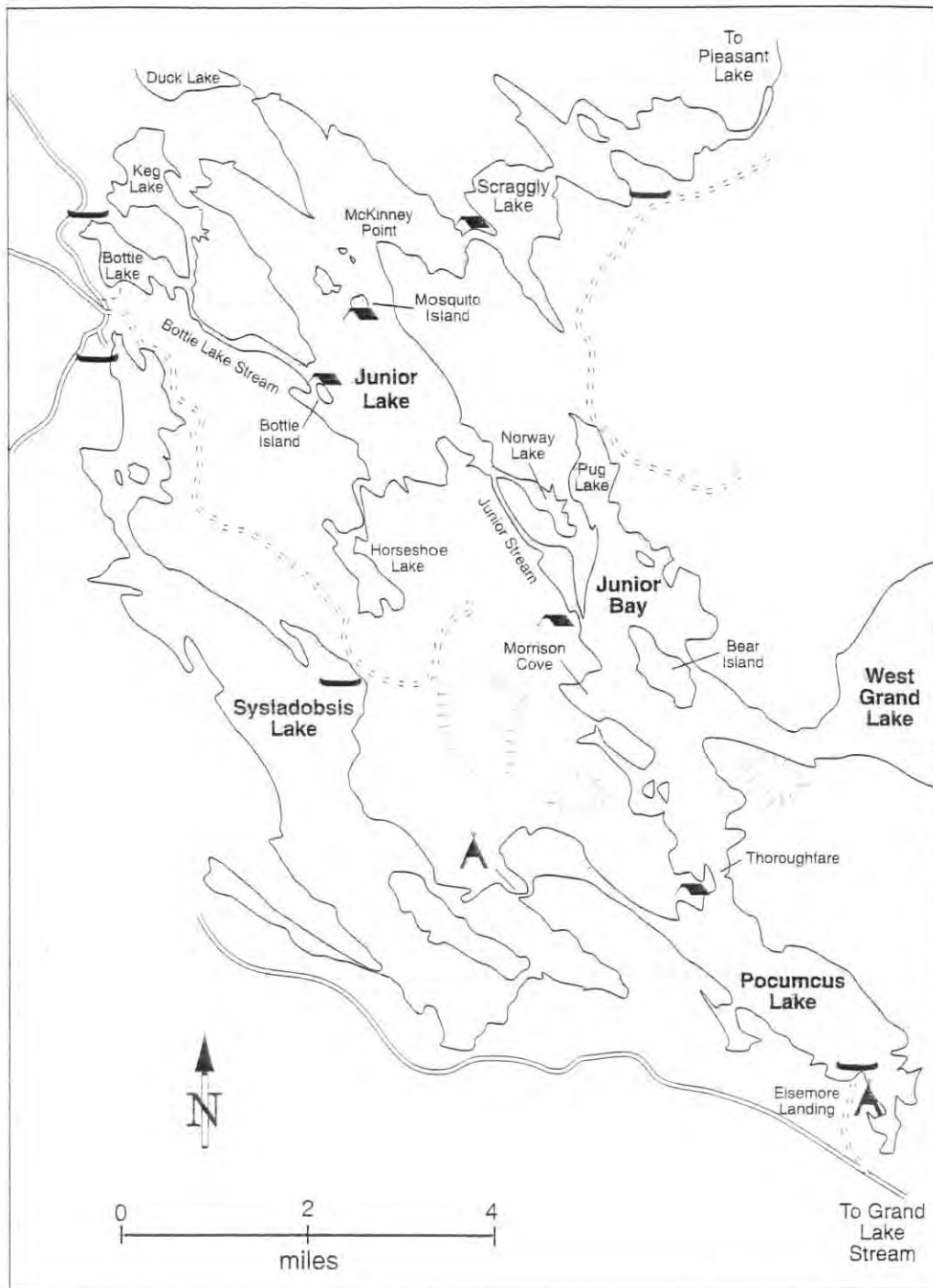
Sysladobsis Lake: salmon, smallmouth bass, perch, and chain pickerel

Fire permits: Maine Forest Service St. Croix River District (207-738-2601) or Central Region Headquarters (207-827-6191). Fire permits required for all campsites except Elsemore Landing.

Outfitting: Sunrise County Canoe Expeditions, Inc., Cathance Lake, Grove, ME 04638; 207-454-7708

Maine Wilderness Camps, RR 1, Box 100, Springfield, ME 04487; 207-738-5052

The loop comprised of Pocumcus, Junior, and Sysladobsis lakes in the heart of eastern Maine's lake country offers one of the best extended quiet-water loop trips in the state, especially when one detours for a few days into Scraggly Lake. These lakes flow into the St. Croix River, which forms the southeastern border between Maine and New Brunswick. Because you can end up where you started, the trip requires just one car. But be aware that these are large lakes; under breezy conditions, large waves can build up quickly, making paddling difficult and, at times, quite dangerous. Always keep your plans flexible and be ready to change them if the conditions prevent you from



paddling on the big lakes. We recommend traveling in parties with at least two canoes for safety.

The ease of this loop trip depends somewhat on water levels. With relatively high water levels (usually up until midsummer), you can paddle from Junior Lake into Sysladobsis Lake via Bottle Lake Stream, Bottle Lake, and a half-mile carry into Sysladobsis. But with lower water levels the closest take-out on Bottle Lake may be inacces-

sible. In that case, the carry would require either disembarking on someone's waterfront yard (Bottle Lake is more heavily developed than any other part of this trip) or making a much farther carry from the official boat access at the north end. So from midsummer through fall, you might want to plan a different up-and-back trip, rather than making a loop of it. Here we give the description of a loop trip that takes anywhere from two (if you really push it) to five days.

Elsemore Landing on Pocumcus Lake to Junior Lake

Elsemore Landing, near the south end of Pocumcus Lake (pronounced po-COM-ses, and referred to locally as Compass Lake) has a state-run campground where you can leave a car and launch your canoe. Midweek, the campground is pretty nice; on a busy weekend, though, it can become a rowdy madhouse (we returned from a multiday trip on Fourth of July weekend to find cars, RVs, tents, and barbecue grills packed like sardines). During the summer season, a campground host lives in a trailer to the right as you enter the camping area and can tell you the best place to leave your vehicle.

Pocumcus Lake is about five miles long and a mile across at its widest point. Deer Brook Cove, about two miles up on the left shore, is a wonderful cove filled with boggy islands and marshy shorelines to explore. We watched a cow moose browsing on underwater vegetation near the north end of this cove, observed lots of beaver activity, and paddled by a week-old loon chick riding on its parent's back near the entrance to the cove. On the sphagnum islands and floating logs, look for the small reddish leaves of sundew, one of several carnivorous plants found in the area. On a windy day, this cove provides a nice respite from the main lake.

To reach Junior Lake, paddle north through the Thoroughfare. Along the western shore, north of the Thoroughfare, are several interesting islands and a deep cove. To the east you will see the quarter-mile-wide outlet from this lake system into West Grand Lake, which is really too big a lake to paddle enjoyably, except in very calm conditions. Head north between Morrison Cove and Bear Island into Junior Bay.

Near the north end of Bear Island on the western shore, Junior Stream drains Junior Lake. You'll find a great campsite here, with picnic tables, outhouses, and plenty of flat tenting locations. This is a permitted campsite, meaning that you don't need a fire permit. (See Introduction (page ix) for an explanation of fire-permit regulations.) If

you camp here, spend a few hours around daybreak exploring the Junior Bay and Pug Lake shoreline or Junior Stream and Norway Lake; moose frequent these shallow waters and marshy coves. Also watch for otters, deer, loons (seemingly everywhere), and bald eagles.

With favorable weather, you can make the Junior Stream campsite a lunch stop and continue on to Junior Lake, where you will find some island campsites. We chose to continue on when paddling here—and regretted it. Most of the morning we had had a light tail wind, and we wanted to keep taking advantage of it. But by early afternoon, when we got out onto Junior Lake, the wind had picked up considerably. Our two laden canoes (one with precious cargo of four- and seven-year-old daughters) bobbed in the increasingly rough water as we made our way for an island campsite near the center of the lake. We got there all right, but just in time, as the winds picked up even more, increasing the waves to two feet.

Though we did not realize it at the time, the island we chose is named Mosquito Island—with good reason. Two stagnant lagoons on the small island, one at each end, breed a crop of healthy and hungry mosquitoes that become all too apparent as soon as the wind dies down. Bottle Island, where we also camped, farther to the south and a bit west, is far better during mosquito season. Another campsite is found on McKinney Point. On one of the islands just north of McKinney Point, a bald-eagle nest perches in a tall white pine. Be careful not to get too close. Eagle nesting success has been poor in recent years due to dioxin pollution from Maine's paper mills (see page 93); this magnificent raptor needs all the help and protection we can give it.

This island area near McKinney Point has a very wild and remote feel to it. Huge granite boulders dot the undeveloped shoreline. Watch out for boulders lurking just beneath the water's surface; we hung up our canoes pretty thoroughly a few times. From the eastern arm of Junior Lake, you can make a wonderful trip into Scraggly Lake to the east (see the following section). The deep coves extending to the north and Duck Lake extending to the northwest, offer hours—and miles—of exploration.

Another interesting side trip from Junior Lake is on the western shore, south of Bottle Island and the mouth of Bottle Lake Stream: Horseshoe Lake. From a campsite on Bottle Island (the nicest campsite, with a picnic table, is on the north end), paddle south about a mile to the entrance to Horseshoe Lake. The channel into Horseshoe narrows to just a few yards across in places, and a few spots swarmed with mosquitoes, but we loved this little out-of-the-way alcove. On the

western shore, just before the channel widens to form the lake, look for a floating bog. The thick mat of sphagnum moss floats on the water and harbors fascinating plants, including pitcher plant, sundew, bog laurel, leather leaf, and two species of orchid: rose pogonia and calopogon, both in full bloom with pink blossoms at the beginning of July—a real treat to be enjoyed from your canoe, never picked! We watched a deer drink at Horseshoe Lake, and it looked like a great area for moose. There is said to be another eagle nest near Horseshoe Lake, though we did not find it.

Junior Lake to Sysladobsis Lake

To the northwest of Bottle Island is the access stream into Bottle Lake, where you can portage into Sysladobsis Lake. The two-mile marshy stream was beautiful when we visited in 1993, with cattail, pickerelweed, bullhead lily, and many, many stumps of trees from when the area was dammed. Enjoy this area while it is still relatively undeveloped. As part of a land settlement in 1979, the federal government returned extensive tracts of land to the Passamoquoddy and Penobscot Indians—land they claimed had been taken from them illegally. Facing financial difficulty a decade later, the Indians sold large tracts to developers, who in turn are subdividing it into forty-acre tracts. Cottages are beginning to appear on Bottle Lake Stream and parts of



Paddling across Junior Lake.

Junior Lake in an area that until recently was almost totally undeveloped. Fortunately, Maine has fairly strong regulations controlling development next to water, requiring significant setbacks and stringent septic design for all development, even summer cottages.

Just before you paddle into Bottle Lake proper, a channel to the right leads into Keg Lake, which we didn't explore but is supposedly quite nice. Bottle Lake's heavy development provides a glimpse of what much of this area might look like in ten years if the recent pace of development continues. While not as thickly developed as many lakes farther south and west in Maine or in other New England states, Bottle Lake represents the kind of place we prefer to paddle through as quickly as possible.

A developed boat launch exists at the north end, but if you are paddling onto Sysladobsis Lake, a small cove extending to the south provides much closer access. As mentioned above, however, this may not be easily reachable at very low water levels. To find the portage, paddle around a small peninsula (almost an island) and behind a boathouse (gray when we visited). Though not marked or maintained, we are told this is an acceptable access for the half-mile carry to or from Sysladobsis. From the boathouse, walk south on the dirt road a few hundred feet, then bear right. In a few hundred yards, cross a larger gravel road and continue south for another few hundred yards until you see an access stream on the left. You can launch into this access stream or carry down the dirt road next to it and launch on the main lake.

Sysladobsis, or Dobsy, as it is locally known, is a big lake, stretching about nine miles from northwest to southeast and extending about a mile and a half across at its widest. You will become well aware of its size with even a modest breeze from the north or south. We had to buck a strong breeze paddling south from the access at the northern tip.

There is some development along the shores, but nothing like Bottle Lake. Dobsy is still clear and clean. Summer residents pump their drinking water right out of the lake, and anglers catch good-size salmon regularly. You can explore the few coves and inlets along the lake if the weather conditions permit leisurely paddling. We paddled a few hundred yards up Sysladobsis Creek, which drains Upper Sysladobsis Lake, but low water and rapids eventually blocked our way.

Unfortunately, owing to the land settlement mentioned above, few campsites exist along the lake. There is supposed to be one near Cranberry Cove, but we failed to find it. Away from established camp-

sites, finding a place to set up a tent is difficult; the land is rocky and full of hillocks and depressions.

Sysladobsis to Pocumcus Lake and Elsemore Landing

Near the south end of Dobsy, Big Island stretches almost two miles in length on a northwest-southeast axis. As you paddle southeast on the lake, keep to the left of the island (unless you have time to explore around it), passing two points of land with cottages on them. Stick to the shoreline and you will reach the lake outlet at Dobsis Dam and Dennison Portage about three-quarters of a mile from the second point. There is a campsite here (fire permit required) but no outhouses or picnic tables. Accessible by road, this campsite was heavily used and filled with trash when we camped here. The nicest site is by an old chimney.

From the campsite, Pocumcus Lake is an easy carry around the dam. Launch your boat into the stream on the left side of the dam (west). From here, it is about a five-mile paddle back to the campsite at Elsemore Landing. The section through Pocumcus Narrows is particularly nice; the south side is marshy with cattails and stumps of long-dead trees.

Getting There

From Calais, take Route 1 north through Princeton. After passing Lewy Lake on the left, watch for a left-hand turn toward Grand Lake Stream. (If you are coming south on Route 1 from Topsfield, this turn [to the right] is 13.8 miles from the junction of Routes 1 and 6.) In 10.1 miles cross Grand Lake Stream (set your trip odometer here to help with the following directions). Stay on the main road, continuing straight where smaller roads turn off. The road quickly turns to gravel. Bear right at 0.5 mile, following the sign to Elsemore Landing. At 6.6 miles, turn right at another sign for Elsemore Landing, and at 7.4 miles bear right toward the water at the state campground. The campground host usually lives in a trailer parked to the right.

Scraggly Lake (Southern) and Pleasant Lake

T5 R1 NBPP and T6 R1 NBPP

MAPS

Maine Atlas: Maps 35 and 45

USGS Quadrangle: Scraggly Lake

INFORMATION

Scraggly Lake area: 2,758 acres; maximum depth: 42 feet

Prominent fish species: smallmouth bass, white and yellow perch, and chain pickerel; also some salmon and lake trout

Pleasant Lake area: 1,574 acres; maximum depth: 92 feet

Prominent fish species: salmon, lake trout, and brook trout

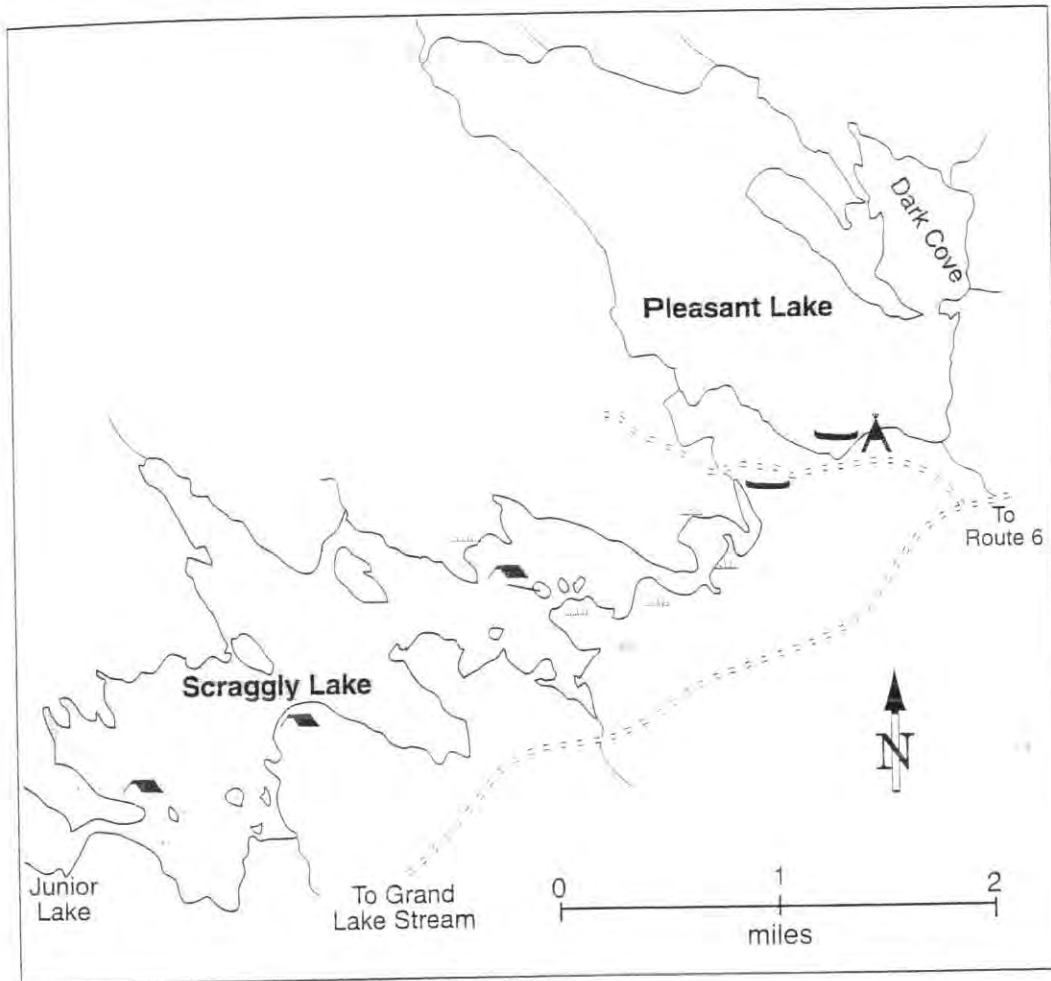
Fire permits: Maine Forest Service, St. Croix River District (207-738-2601) or Central Region Headquarters (207-827-6191)

Outfitting: Maine Wilderness Camps, RR 1, Box 100, Springfield, ME 04487; 207-738-5052. Canoe-trip outfitting, transportation from Bangor airport, and year-round campground.

Scraggly Lake is one of our favorites. Called “southern” in this section to distinguish it from another Scraggly Lake farther north (see page 274), it is accessible either from Pocumcus and Junior lakes to the west and south, or from Pleasant Lake to the north and east (via a portage). The lake is only 3.5 miles long, but the highly varied shoreline extends nearly twenty miles along marshy coves and wild undeveloped islands. Wild and remote, this is the paddler’s ideal lake: too shallow for most motorboaters and far enough from road access that you have to do some work to get here.

We paddled into Scraggly as part of a loop trip starting at Elsemore Landing on Pocumcus Lake and extending through Junior and Sysladobsis lakes (see previous section). On that trip, Scraggly makes a wonderful two- or three-day detour. More popular is a one-way trip starting at Maine Wilderness Camps on the northern shore on Pleasant Lake with a portage to the northeastern tip of Scraggly, then on through to Junior Lake and either Pocumcus or West Grand Lake. Maine Wilderness Camps is both a very nice campground and an outfitter that can set you up with gear and shuttle you to a starting or ending point.

Scraggly Lake is a wonderful place for wildlife. Paddling along the northern shore in the first light of morning, we surprised a magnif-



icent bald eagle that had been feeding at the water's edge. We saw a number of eagles here, including an active nest in a large white pine tree on an island in Junior Lake. Wood ducks, loons, ring-necked ducks, deer, and a huge snapping turtle were among our other observations here. During a morning paddle from Scraggly up into Pleasant Lake, we watched a playful family of otters in the glass-smooth water. Though we did not happen to see moose while here, it appears to be superb moose habitat. You may also see common terns here; we suspect they nest on large boulders protruding from the lake that are visible from the Scraggly Island campsite.

A number of designated campsites dot Scraggly Island. The nicest site is a permitted site, meaning that you do not need to obtain a fire permit to use it. The other two sites shown are permit sites. The island's camping areas have fire rings, picnic tables, and lots of space for tents. Unlike most sites in the area, you'll also find outhouses here. During a visit at the end of June we found surprisingly few mosquitoes on Scraggly Island, though some of the surrounding

marshy areas were quite buggy. From this island, a particularly interesting area to explore is the marshy area east and south of the island. If the water isn't too low, you can find a passage around the large marsh, though by midsummer passage would almost certainly be blocked by low water.

A Side Trip to Pleasant Lake

If you want to go from Scraggly Lake up into Pleasant Lake, paddle to the eastern tip and take your boat out at a steep gravel ramp (too steep for trailers). Carry up to the road (about fifty feet) then to the right (east). You can carry all the way to the state campground, where there is a launch onto Pleasant Lake (about a half-mile), or you can cut over to Pleasant Lake on a portage trail. We had a two-wheeled portage cart so we stuck to the road. The trail seemed to be poorly marked and hard to follow due to logging activity in recent years.

The state campground on Pleasant Lake is a stark contrast to the relaxing feel of Scraggly Lake; when we visited, it was crowded with thirty or forty small trailers and badly littered. Used by a heavy-drinking, hook-and-bullet crowd, the campground is known locally as "Rowdyville." When we launched here at around 7:00 A.M. most of the camp was still sleeping it off. Apparently, the state may begin clamping down on long-ignored regulations that limit the length of stay here (common practice today is to park a trailer here for the summer and use the lake as a weekend retreat). There is no charge to camp here, and if vehicles were somehow kept out this would be a great spot.

The best area of Pleasant Lake to explore by canoe is Dark Cove. Hundreds of boulders sticking out of the water and hiding just beneath the surface near the mouth of the cove effectively keep motorboats out. The water is very clear, and you will see thousands of fresh-water mussels sticking out of the sand on the bottom. White cedar is the dominant tree here, along with balsam fir, spruce, and white pine. Alders, bog laurel, sweet gale, and other northern species grow in profusion along the shore. We found a very pleasant campsite (unmarked on maps) near the north end, nestled beneath a grove of red pines.

At the north end of the main lake is Maine Wilderness Camps, which seems to be a good private campground with tenting and trailer sites as well as cabins. Owner Terry McGrath also provides canoe outfitting and shuttling service to area lakes and rivers. Those wish-

ing to enjoy some wilderness canoeing but not a lot of driving, can even arrange for shuttling from the bus station or airport in Bangor.

Getting There

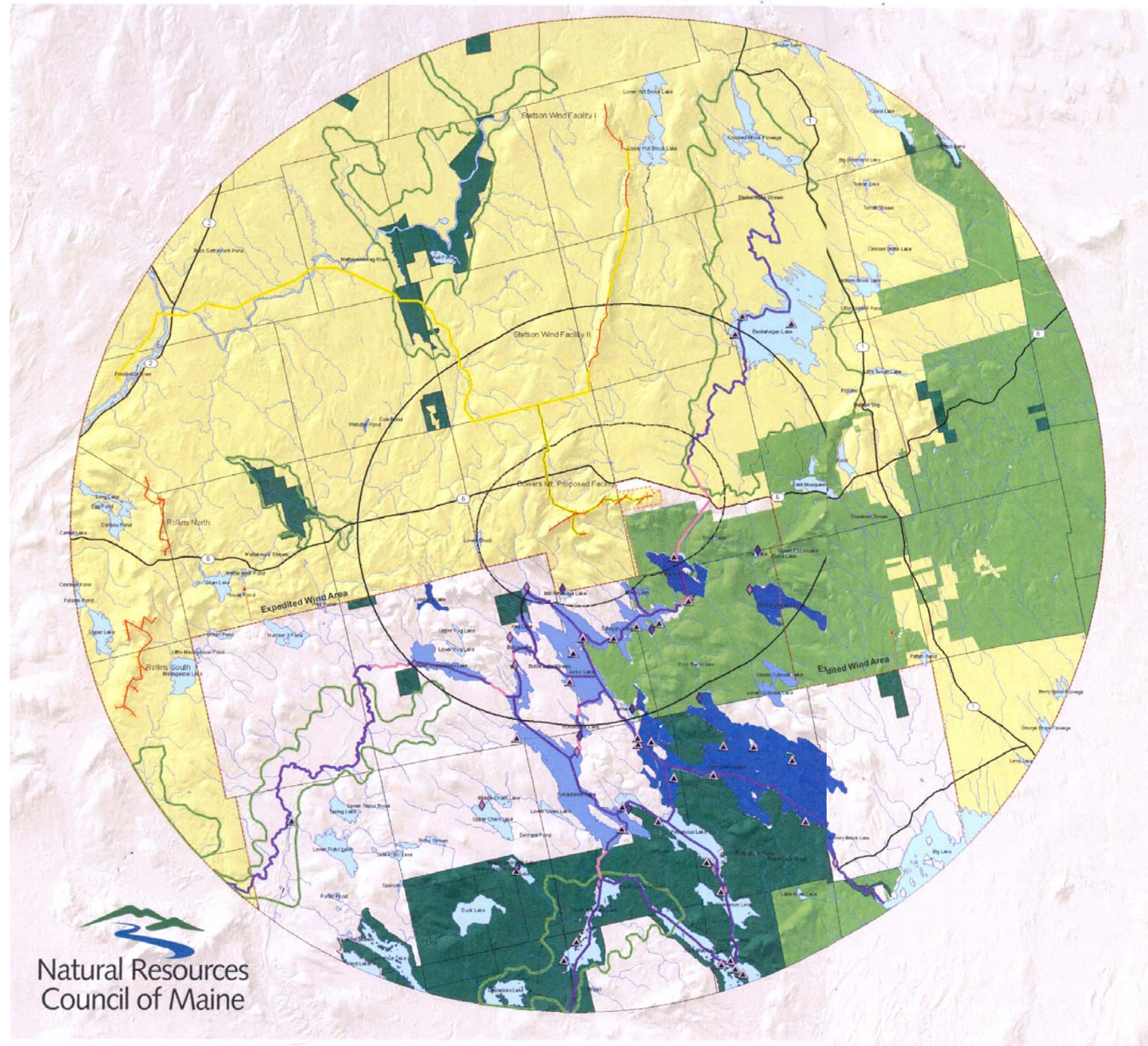
As mentioned, there are several options for getting to Scraggly Lake. You can launch your canoes at Elsemore Landing on Pocumcus Lake (for access directions, see page 159) and paddle north through Junior Lake into Scraggly. Plan at least a day to get to Scraggly; in windy conditions it may take longer. Be very careful paddling on Pocumcus and Junior lakes in windy conditions. These are big lakes with potentially dangerous conditions.

Alternatively, you can drive to Pleasant Lake and begin your trip there. If you are coming from Pleasant Lake, you might be more comfortable leaving a vehicle at Maine Wilderness Camps (there may be a small fee) than at the state campground. If you choose to leave your car at the campground, you can drive to the eastern tip of Scraggly, unload your gear, then drive back to the campground to park. A high-ground-clearance four-wheel-drive vehicle is recommended if you want to drive in; we have not tried it.

To reach Maine Wilderness Camps by car, take I-95 through Bangor to Exit 55 (Lincoln). Follow Route 6 east for approximately 34 miles through Carroll and across the Washington County line. Continue on Route 6 for 4.5 miles past the county line, and turn right at the sign for Maine Wilderness Camps. Follow the private road for 3.5 miles to the campground and shores of Pleasant Lake.

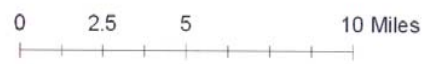
Exhibit B

Conservation Lands and Key Recreation and Scenic Resources within 20 miles of Bowers Wind Project



- Map Features**
- 3 Mile Radius
 - 8 Mile Radius
 - State Highway
 - Campsites
 - Hand Carry Boat Launch
 - Trailer Boat Launch
- Wind Facilities**
- Rollins Wind Facility
 - Stetson Wind Facility
 - Bowers Mt. Proposed Facility
 - Expedited Wind Zone Border
- Transmission Lines**
- Existing
 - Proposed

- Lake Classification**
- Outstanding Scenic Resource within 8 miles
 - Significant Scenic Resource within 8 miles
 - All Other Water Bodies
- Canoe Routes**
- Portages
 - Water Routes
- Land Type**
- Fee Conservation Lands: State and NGO Land
 - Conservation Easements: Publicly and NGO Held
 - Beginning with Habitat Focus Areas



Natural Resources Council of Maine

**TESTIMONY OF CLYDEMACDONALD OF HAMPEN, MAINE,
BEFORE THE MAINE LAND USE REGULATION COMMISSION
CONCERNING THE PROPOSED BOWERS MOUNTAIN WIND FARM
PROJECT. JUNE 27,2011.**

I WILL LIMIT MY COMMENTS TO AN ALL BUT UNKNOWN SUBJECT, BUT ONE THAT THREATENS THOUSANDS OF JOBS IN MAINE'S FOREST AND TOURIST INDUSTRIES. I AM REFERRING TO FOREST FIRES THAT ARE CAUSED BY FLAMING WIND TURBINES.

I THINK I AM THE FIRST NON-AFFILIATED PERSON TO DO RESEARCH ON THE CONNECTIONS BETWEEN WIND TURBINES AND FOREST FIRES. I HAVE HAD TO RELY MAINLY ON MEDIA REPORTS.

LAST YEAR, WHEN I RECEIVED A CITIZEN INSPIRED STATISTICAL REPORT CONCERNING THE CAITHNESS CORPORATION WITH WIND FARMS IN THE NORTHWEST, I SAW THAT THAT ONE COMPANY HAD EXPERIENCED 110 SERIOUS TURBINE FIRES OVER A 20 YEAR PERIOD. WHEN SEVERAL SOURCES REVEALED THAT WIND TURBINES EVERYWHERE THROW OFF SHARDS THAT LAND UP TO A MILE FROM THE SITE, I PUT TWO AND TWO TOGETHER AND BEGAN SEARCHING FOR DATA.

I STRUCK GOLD WHEN I FOUND A 92 PAGE COMPILATION THAT CONTAINS A RECORD OF 992 INSTANCES OF TURBINE SAFETY PROBLEMS SUCH AS DEATHS, INJURIES, PROPERTY DAMAGE, TOWER COLLAPSES, ICE THROWS, AND FOREST FIRES. IT INCLUDED 143 TURBINE FIRES. THE REPORTS CAME MOSTLY FROM TV NEWS SPOTS AND NEWSPAPERS LOCATED IN EUROPEAN AND OTHER COUNTRIES AS WELL AS IN OUR STATES.

WE DO NOT KNOW HOW MANY TURBINE FIRES HAVE SPREAD TO FIELDS, FORESTS AND HOMES BECAUSE MOST OF THE REPORTS SIMPLY STATE "NO DETAILS AVAILABLE." BUT THEY DO CITE 25 TURBINE FIRES THAT HAVE SET FORESTS ABLAZE. EIGHT OCCURRED IN CALIFORNIA ALONE.

ONE DOES NOT HAVE TO RELY ONLY ON MY DATA. COMPANIES THAT SELL FIRE SUPPRESSION EQUIPMENT ADVERTISE ON THE INTERNET THAT TURBINE FIRES ARE A REAL PROBLEM. SCOTT STARR, MARKETER FOR THE FIRETRACE CORPORATION DESCRIBES IN DETAIL THE REASONS THAT TURBINE BLAZES ARE INEVITABLE AND THAT THEY CAUSE MILLIONS OF DOLLARS OF DAMAGE TO SITES AND FORESTS. I WOULD LIKE TO SUBMIT A COPY OF EXCERPTS FOR THE RECORD.

IN MAINE, IT HAS BEEN ALL BUT IMPOSSIBLE TO FIND WAYS TO LET THE PUBLIC KNOW OF THE THREATS THAT WIND TURBINES POSE TO OUR FORESTS. TWO WEEKS AGO, I SENT PACKETS OF MATERIAL, INCLUDING SAMPLES OF BACK UP EVIDENCE, TO THREE OF MAINE'S MAJOR DAILIES AND SEVERAL TO WEEKLIES, INCLUDING THE LINCOLN NEWS. NOT ONE HAS YET SEEN FIT TO PRINT THE STORY.

I AM THANKFUL THAT THIS MONTH, A PRESTIGIOUS QUASI-NATIONAL TRADE JOURNAL TITLED, *THE NORTHERN LOGGER AND TIMBER HARVESTER*, WITH READERS EXTENDING FROM WISCONSIN TO MAINE, PUBLISHED MY ARTICLE IN WHICH I EXPLAIN MORE FULLY THE RELATIONSHIPS BETWEEN WIND TURBINES AND FOREST FIRES. I WOULD LIKE TO HAVE THIS COPY ENTERED INTO THE RECORD. A VIRGINIA READER HAS RESPONDED BY WANTING TO REPRINT THE ARTICLE.

I WAS ENCOURAGED AFTER GIVING MY TESTIMONY IN MARCH AT THE DEP HEARING IN DIXFIELD. THE DEP RESPONDED BY ASKING THE WOULD BE DEVELOPER HOW HIS FIRM PROPOSED TO COPE WITH THE DANGER OF FOREST FIRES. THE APPLICANT REPLIED BY STATING HIS FIRM WILL BE USING GENERAL ELECTRIC TURBINES. GE HAD INFORMED HIM THAT WHILE THEIR OLDER TURBINES MAY HAVE HAD PROBLEMS WITH FIRES, THE NEWER MODELS RARELY CATCH FIRE. THAT UNTESTED RESPONSE IS YET ANOTHER REASON WHY WE NEED A MORATORIUM IN ORDER TO CONDUCT IMPARTIAL TESTS ON VARIOUS TYPES AND BRANDS OF TURBINES. IF GE'S CONTENTION PROVES TO BE TRUE, SHOULD ALL FUTURE MAINE PROJECTS BE REQUIRED TO USE ONLY GE TURBINES?

COMMENTATORS HAVE NOTED THAT THE TALLER THE TURBINE THE HEAVIER THE NACELLES AND THE GREATER THE DANGER OF FIRES CAUSED BY LIGHTNING STRIKES AND THE INNER WORKING OF THEIR MECHANICAL PARTS. TWENTY TWO OF THE TURBINE FIRES IN MY DOCUMENT STATE THE FIRES WERE CAUSED BY LIGHTNING STRIKES ON TURBINES AS SHORT AS 270 FEET TALL. I BELIEVE ALL RECENT MAINE APPLICATIONS CALL FOR TURBINES HIGHER THAN 400 FEET MAKING SUCH STRIKES MORE LIKELY.. SHOULD NOT THIS BE ANOTHER QUESTION FOR YOUR AGENCY TO EXPLORE?

ANOTHER UNANSWERED QUESTION CONCERNS WHAT ALLOWANCES HAVE BEEN MADE FOR STATE OR COMMUNITIES TO

ACQUIRE AND PAY FOR FIRE FIGHTING EQUIPMENT? CALIFORNIA WAS ABLE TO LIMIT THE SPREAD OF TURBINE CAUSED FOREST FIRES BY HAVING MASSIVE EQUIPMENT LOCATED SOMEWHAT IN PROXIMITY TO THE FIRES. THE EQUIPMENT INCLUDED SUCH THINGS AS WATER CARRYING PLANES, HELICOPTERS, WATER TRUCKS, BULLDOZERS, AND DOZENS OF PERSONNEL ON THE GROUND. AUSTRALIA WAS NOT SO FORTUNATE. IT LOST THOUSANDS OF ACRES OF FOREST LAND TO TURBINE FIRES. AT LEAST ONE OF ITS PROVINCES ENACTED A LAW BANNING PLACEMENT OF TURBINES NEAR FORESTED AREAS. SHOULD NOT MAINE AT LEAST CONSIDER THAT OPTION? YET, OUR LEGISLATURE RECENTLY REJECTED A MORATORIUM BILL. THEREFORE, MAINE PEOPLE'S ONLY HOPE FOR A STAY LIES ENTIRELY IN THE HANDS OF THIS COMMISSION AND THE DEP. BY REJECTING ADDITIONAL SITES, YOU WILL ALLOW YOURSELVES AND IMPARTIAL EXPERTS TO LOOK DEEPLY INTO THE SUBJECT OF TURBINE CAUSED FOREST FIRES.

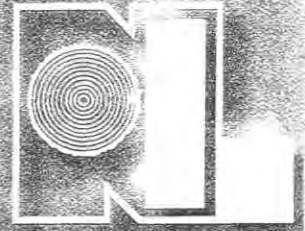
OTHER QUESTIONS TO BE RESOLVED INCLUDE WHETHER THE LOCAL BENEFITS PROVISIONS SPECIFY WHO SHOULD PAY FOR THE FIREFIGHTERS, THEIR EQUIPMENT ACQUISITIONS, MAINTAINANCE, AND THE LIKE? HOW MANY STATIONS SHOULD THERE BE AND WHERE SHOULD THEY BE LOCATED?

FINALLY, I WILL CITE AN EDITORIAL ON THE INTERNET THAT REFERS TO MR. STARR'S ARTICLE WITH THE TITLE, "*NOT 'IF'---BUT WHEN.*" THE EDITOR AGREES WITH MR. STARR THAT FOREST FIRES FROM EXPLODING AND COLLAPSING TURBINES MAY BE INEVITABLE. AND, OF COURSE, THE GREATER THE NUMBER OF TURBINES, THE GREATER THE THREAT TO OUR FORESTS AND TO OUR INDUSTRIES DEPENDENT ON THEM. I BELIEVE THIS IS A COMPELLING REASON FOR LURC TO REJECT THIS APPLICATION.

JUNE 2011

TWO DOLLARS

The Northern **LOGGER** AND TIMBER PROCESSOR[®]



HAMBURG EXPO REVIEW

Official Publication of the Northeastern Forest Products Equipment Expositions

LETTERS

A FORUM
FOR READERS
TO SHARE
THEIR VIEWS

Dear Editor:

Despite all that has been written about wind power, one of the most important issues has barely been mentioned. When turbines fail, a frequent occurrence, their blades sometimes fall to the ground and/or send bits and pieces that land up to a mile away. Turbines also frequently catch fire. Some of those flying blade fragments cause forest fires at considerable distances from the launching sites. Much has been made of the value of the temporary construction jobs associated with clearing land and erecting 400-foot plus towers on mountain sides, but it appears there has been no consideration of job losses from wind powered forest fires in paper, lumber, and other wood dependent industries.

Official information on the number and severity of forest fires caused by wind turbines is unavailable largely because wind power companies are allowed to keep all pertinent data secret. Nonetheless there have been scattered press reports from many states and nations. And it appears that an outside organization put together an accounting of the Caithness Wind USA's experience with turbine fires in the Northwest. That firm experienced 110 serious turbine fires over a 20-year period but there is no mention of whether some of those fires may have spread to forested areas.

Similarly, most of the 43 media citations of turbine fires in the US and Europe are followed with the words "no details." Other references contain brief statements such as that 22 were caused by lightning strikes. The reports do mention that 25 turbine fires spread to fields and forests. California has experienced a large number of forest fires over the past few years and one wonders how many were caused by wind farms.

A modest number of the accounts do refer to turbines that have caused forest fires. One turbine caused fire in California was contained after burning 68 acres; another 220 acres; a Palm Springs incident created a number of "small spot fires" over an extended area. In Maui, Hawaii, 95 acres burned. An Australian turbine fire caused 80,000 hectares to burn; in Spain, 80 hectares. In Germany, "burning debris (was) reported to travel several hundred meters." In Holland three blades from a mere 270 foot tower exploded and one 50 pound shard landed 220 feet away. The most dramatic notice was printed in the Wales Cambrian News when it referred to "great balls of fire" that threw flaming debris more than 150 yards, setting a hillside ablaze. Fearing more such fires, an Australian province enacted a law forbidding placing wind turbines in or near forested areas. Yet, in the State of Maine numerous wind farm sites have been approved without any regard to forest fires and I presume the same is true of other states.

On occasion, when metal fatigue from various stresses cause towers to fall, another common occurrence, they cause fires

after they hit the ground.

It does not take much imagination to foresee that turbines hundreds of feet tall, located on steep mountain slopes in heavy wind corridors, when they catch fire, can easily shoot flaming debris into woods and surrounding areas. Worse yet, flaming turbines are located mostly in remote areas, far from sophisticated firefighting equipment.

More fire engines are not the answer. In every account, firefighters reported they could merely watch as their equipment could not reach the flaming nacelles. In every case, the strategy was to let the tower fires burn themselves out. Damage to forests in many cases have been contained because in Germany, California, and Australia, massive firefighting equipment was located not as far away. That is not the case in Maine and many other states. The 68 acres that were burned in one of the California fires had been contained with the assistance of 15 fire engines, four hand crews, and four aircraft.

The 220-acre California fire had been contained by 45 firefighters, two helicopters, and two bulldozers. Also in that state, a five-acre fire was contained by six fire engines, three water trucks, two helicopters, two air tanker planes, a bulldozer, and three hand crews. If, or when, there are fires on mountain tops in northeastern rural forested areas, one wonders where the personnel and equipment will come from, how long it will take them to get there, and who will pay the costs. It is doubtful that these questions have been asked or answered in states that are now hurrying to install hundreds of turbines before the federal and state subsidies expire.

There should be a moratorium on further placements until these questions have been answered satisfactorily. General Electric allegedly has told a private developer that unlike the older models, their modern turbines do not catch fire except in very rare cases. This claim should be investigated. Foresters and others should insist that the entire subject of the incidence of forest fires caused by blazing turbines should be explored by institutions with the resources to do a thorough and unbiased investigation. Until then, a moratorium should be imposed.

Clyde MacDonald
Hamden, Maine

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- Why you should be concerned

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Northgowerwindactiongroup's Blog

The facts about wind turbines in North Gower-Richmond, Ontario

Feeds:

Posts

Comments

« Electrifying day in Toronto: Laforet speaks to business
Wind turbines and property values—a realtor speaks »

Wind turbine fires: not “if”—WHEN

June 5, 2011 by northgowerwindturbines

In the current issue of *North American Clean Energy*, a huge, tabloid-sized glossy magazine for the “renewable” energy sector, is an article titled “Taming Turbine Fires Before They Start.” Here are some excerpts (the article is not online yet). Any emphasis is ours.

According to reports, the cost of a fire that damages or destroys a wind turbine can be as much as \$2 million. Property damage to the turbine, and nearby areas, from fires reported in the past decade ranged between \$750,000 and \$6 million.

Aside from the imminent hazards of a burning turbine, there is also the risk of sparks, embers, or debris falling to the ground and setting off a wildfire due to the remote location of many wind farms. Even if a turbine is not fully burned or damaged, or a potential fire doesn't spread to the surrounding countryside, costs can be considerable. ... Turbine fires—and particularly, those that spread—should be a significant concern, affecting the planning stages of any project. To this avail, permitting might be a more drawn-out, costly, and time-consuming process. ... But what are the fire risks associated with wind turbines?

Technical equipment and combustible material are concentrated in the nacelle and, once a fire starts in a turbine, it can be fuelled by up to 200 gallons of hydraulic fluid and lubricants. The nacelle itself is constructed from highly flammable resin and glass fiber, and internal insulation can become contaminated by oil deposits, adding to the overall fuel load.

The most common cause of a turbine fire is a lightning strike—a risk that is heightened by the installation of taller and taller wind turbines. Turbines are now being built that are up to 320 feet high. They're frequently sited in exposed and high-altitude locations. Globally,

(over)

there are around 16 million lightning storms and approximately 1.4 billion lightning flashes every year. However, only 25% of these are cloud-to-ground. ... Recently, a wind turbine caught fire as a result of a lightning strike. Burning parts of the rotor blade, which had been struck, fell and caused a secondary fire in the nacelle—all at a cost of \$200,000 and 150 lost days of operation.

Mechanical failure or electrical malfunction can also trigger a fire as capacitors, transformers, generators, electrical controls, transmission equipment and SCADA (supervisory control and data acquisition) systems all have the potential to catch fire. ... Overheating can cause hot fragments of the disk brake to break off, rupturing hydraulic hoses, and resulting in the highly combustible hydraulic fluid being expelled under pressure and coming into contact with the hot disk brake fragments. Hydraulic pumps and connections can also fail, allowing the fluid to erupt into flame when it comes into contact with a hot surface.

With the **fire risk becoming greater** as more turbines come into operation, the National Fire Protection Association (NFPA) [in the U.S.] has added wind turbine and outbuilding fire protection standards to NFPA 850 (“Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations; 2010 edition). This provides fire protection recommendations for the safety of construction and operating personnel, physical integrity of plant components, and the continuity of plant operations.

... Wind farm fires do happen and many in the industry suspect that they occur far more frequently than statistics suggest. This is because a significant number of turbine fires go unreported due to their remote location. [Editor: NOT in Ontario.] ... Hardly surprising, many insurers are becoming increasingly concerned, and the opinion of many can be summed up in the following statement: “Fire. **It’s not a matter of if, it’s a matter of when.**” Better safe than sorry.

The author, Scott Starr, is director of marketing for Firetrace International.

Question: Is Ottawa ready for a fire in an industrial wind turbine, especially in turbines that will be higher than any in North America?

Email us at northgowerwindactiongroup@yahoo.ca and follow us on Twitter at **northgowerwind**

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Daniel P. Remian

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Testimony for application #DP 4889, Bowers Mountain Wind Project, June 27, 2011

Presiding Officer Hilton, members of the Commission. My name is Dan Remian from Cushing in Knox County. I am an engineer and have over 52 cumulative years as the chair of Planning Boards, Zoning Commissions, Wetlands Commissions and Conservation Commissions in three New England states. Presently I serve as Assessor and as chair of the Planning Board for Cushing.

I believe we have environmental and energy issues and I believe these issues should be solved using real science. Most of you may agree that this makes sense. You may be asking what is real science? Real science consists of a hypothesis, (e.g. that wind energy can be equivalent to our conventional power sources) being subjected to a comprehensive, objective, independent, transparent and empirical based assessment. This has never been done for wind energy.

Before most utility companies commit to new generating sources that are not forced upon them through legislation they require that the source:

- provide large amounts of electricity;
- provide reliable and predictable electricity;
- provide dispatchable (power on demand) electricity;
- provide economical electricity;
- provide a compact facility (small footprint);
- provide grid demand elements (base load, load following , peak load).

Wind power does not satisfy any of these requirements.

The Wall Street Journal and many utilities are now questioning and campaigning against wind farms. One such company is Idaho Power and Light. In their first three ads the themes are:

- What is the Real Cost of Idaho Wind Power?
- How do you make Wind Energy Seem less expensive?
- What happens when the Wind Doesn't Blow?

What if a developer came into Maine and presented us with a solution to our energy and environmental issues. They claim they have this black box that will solve these problems but they need several billion dollars of taxpayer and ratepayer money. Would you take out your checkbook without seeing an effective cost-benefit analysis? That is what our Legislature and Utilities Committee has allowed without essential scrutiny or even debate. Am I being unreasonable to ask for genuine scientific proof and a technical, economic and environmental assessment of any new alternative energy solution, especially wind?

D. Remian Testimony for application #DP 4889, , June 27, 2011

Now, would you purchase a vehicle that only provided power for you to drive 30% of the time that you needed and then you hired a tow truck to continue on to your destination? That is what wind turbines do. Developers claim a 30% output while FERC data showed that Stetson Wind produced only 17% and our own University at Presque Isle only produced 11%. I give the University credit for having a very transparent web site.

Wind power is vigorously promoted as our cure all, reducing our dependence on foreign oil, providing free reliable energy, creating thousands of jobs and reducing global warming. However, wind power is not benign, the manufacture of wind generation components, their transport from foreign countries, their site devastation, their installation, maintenance and infrastructure requirements do contribute to a carbon footprint. Wind power development also initiates many mining operations for cement, iron ore, copper, aluminum and new rare earth metals for generator magnets. The extracting, smelting, refining and fabricating processes have a cumulative contribution to a carbon footprint. Site development alone here in Maine destroys carbon-sequestering forests.

When the subsidies and tax incentives are eliminated, as is now happening in Europe; when the LLCs disappear, as they so often do; who will remove these monuments to an unsustainable industry and who will reverse their associated environmental damage. Please read the poor decommissioning plan.

A much touted survey completed when the previous Governor was promoting his "Emergency", indicated that 80% of Mainers approved of wind power. A recent survey reveals a totally opposite result with only 2% favoring land-based wind farms and 84% opposing land-based wind. These results are significant because so little of media reporting is other than promotion. In Europe, Australia and many parts of the United States the results are similar; wind power is inefficient, costly and unwanted. The dishonesty of the wind developer's claims of benefits to Maine households is evident in this latest poll. The promise of hundreds and possibly thousands of jobs for Maine and millions of dollars spent in Maine is exploited and is a misrepresentation of facts. Are a few temporary jobs worth sacrificing other businesses in Maine that depend on the beauty that is being destroyed, possibly forever.

After one wind developer claim after another is exposed by an informed public and found to be misrepresented and dishonest; Maine's dependence on fossil fuel, our carbon footprint, now the developers are promoting the hundreds of jobs these projects create. Take a look at the vehicle number plates of these workers; you may realize they have very long commutes. A Vermont newspaper last month wrote of the displeasure of the local unions that are now opposing the Northern Vermont and New Hampshire wind projects. The unions have found that for every 100 wind or transmission jobs created only 2 local tradesmen were hired.

D. Remian Testimony for application #DP 4889, , June 27, 2011

I was been a licensed real estate broker in 2 southern New England states for over 14 years. One very significant property asset is scenic views, whether mountain, water, fields, forests or open space. Look at many real estate adds to verify my claim. The wind farms in Maine are an industrial nuisance and therefore devalue property especially lake property. The wind industry uses its Berkley Study to claim no value reductions. However, several true appraisals offer scenarios of lakefront losses of up to 69% and some total abandonment. Can Maine people and communities afford these losses? I can personally speak to this because we have 21 acres and 600 feet of waterfront property on Spruce Mountain Pond. We received two offers from very nice families and kept each one open for over a year as they attempted to sell their properties. Both properties are still for sale near the Mars Hill wind farm.

Our number one business, tourism, generates millions of dollars in wages and retail sales and thousands of jobs for Maine people. Hunting and fishing generate \$498 million, snowmobiling generates \$300 million, water sports generate \$185 million and wildlife watching generates a massive \$1.3 billion. How much money will wind mill watching generate?

I gave a presentation back in this spring and after the presentation a couple approached and asked if one of my photos was of Hot Brook Pond near the Stetson wind project. The wife was in tears and the couple related of their honeymoon nine years past at Hot Brook and that they had been coming back every year since. They will not return because the noise was so disturbing in the quiet they once knew and the strobing red lights reflecting on the water overpowered the black and starlit sky they came up to enjoy. I have many friends and relatives who came to the Danforth area, spent a lot of money on their many annual trips, but were angry over what was done to the quiet and black sky they came for. They related, they would not be returning. I was told recently that one of our town officials would not go back to Spruce Mountain Lodge if he saw any more wind mills. The Lincoln area blight was enough for him and his friends.

Your commission has a great Comprehensive Plan. I cannot find where this project fits or does not violate the intent of this great plan to protect our valuable resources. Please reference Chapters 5.2, 5.5, 5.6, 5.7, 5.8, and especially chapters 5.9, Recreational Resources, 5.10 Scenic Resources and 5.11, Water Resources. The LURC standards should not allow this project. Based on these standards this project can be and should be denied for the benefit of the people of Maine

There are many unknowns with wind generation and many unsubstantiated claims by wind farm developers. New studies and models from at least 22 Universities show that wind farms are creating climate change and arid conditions in some parts of the country. We need answers. What independent scientific proof do you have that wind energy does what the developers claim? Our quality of life and place should not be for sale.

You have many people in Maine who feel they have been injured; you have Maine's number one industry, tourism, that could be seriously damaged; you now have an opportunity to help this State and its people by **denying Application DP 4889**.



Gary Conant
205 Valley Rd, Raymond, Maine 04071

1225 Bottle Lake Rd, Lakeville, Maine

My question is, where does it end?

When all the ridges, in all the unorganized townships and rural areas of our state are covered with wind turbines?

There's gold in them thar hills!
That gold comes in the form of profits from industrial wind projects.

Even if some of the people responsible for building these large wind farms do care about the environment and jobs, there will be an endless stream of others, waiting for their chance to stake a claim.

Others that care about little else, but money.

(2)

So, where does it end?

Nobody, actually, knows, but the proposed Bower's Wind Project would **be** the proper location at the proper time, to demonstrate reasonable constraint, in the onslaught of eastern Maine's, awe inspiring night sky, unspoiled ridgelines, and the unique feeling of solitude, that's felt every time one ventures onto the spectacular lakes of this region.

Please, do not let them rob the state of Maine and future generations of these precious and dwindling natural gifts.







June 27, 2011

Gwen Hilton, Chair
Steve Schaefer, Vice-Chair
Maine Land Use Regulation Commission
22 State House Station
Augusta, ME 04333-0022

RE: Testimony in Support of Bowers Wind Project, Development Permit DP 4889

Chair Hilton, Vice-Chair Schaefer, and Commissioners, my name is Jeremy Payne and I am the Executive Director of the Maine Renewable Power Association. MREA is a not-for-profit association of renewable power producers, suppliers of goods and services to those producers, and other supporters of the industry. MREA members sustainably manufacture electricity from hydro, biomass, wind, tidal, and waste to energy.

I am here today to testify in support of the Bowers Wind Project, in the hopes that I have information you may find useful during your consideration of this application before you.

As you know, Maine has in statute goals to host 2,000 megawatts (MW) by 2015, 3,000 MW by 2020, and 8,000 MW of wind power in our State.¹ These goals and other sections of statute recognize the important opportunity we have in front of us to seize upon our natural resource advantage and host appropriately sited and sized wind power projects. The fact is that Maine has the best wind resource in New England and 19th best in the country.² By no means does this mean we should be putting wind projects up across every acre, ridgeline, or all over our coastal waters, but it does mean that we have a significant opportunity to re-shape our energy future, reduce the environmental and health impacts from regional energy generation, and, perhaps most importantly, a chance to grow new jobs and create prospects for keeping our youth from leaving Maine upon graduation from high school or college.

Maine and region is heavily reliant on natural gas to power our homes and businesses – right now this may seem like a good deal as gas prices are quite low; however, there is an inherent risk in being overly reliant on one fuel source.³ This risk is only magnified when one considers that gas is a volatile commodity whose prices have tended to swing violently as recently as the summer of 2008 depending on a number of factors that are not only obvious ones like supply (e.g. government instability, natural disasters, etc.). One of the best decisions Maine can make to

¹ <http://www.mainelegislature.org/legis/statutes/35-A/title35-Asec3404.html>

² http://www.emnrd.state.nm.us/ecmd/renewableenergy/documents/State_Energy_Potential.pdf

³ http://www.iso-ne.com/nwsiss/grid_mkts/key_facts/me_01-2011_profile.pdf

improve our energy prices is to diversify our energy portfolio, and one of ways we can do this is to embrace the development of wind power. Wind is effectively an inflation-proof fuel source, meaning that once a project is built its fuel costs are virtually nil.

Wind also offers Maine the chance to greatly reduce the environmentally harmful emissions we currently experience from the combustion of fossil fuels. A 2008 study conducted by the U.S. Department of Energy found that with 1,000 MW of wind power Maine would reduce CO2 emissions by 2.8 million tons *annually*.⁴

The wind industry has invested heavily in Maine over the last seven+ years, and will only continue to do so if they believe the regulatory environment is both predictable and reasonable. Since 2003, total investment is \$946 million, of which \$378 million remains in Maine to benefit our local and state economies. A recent study of three wind projects (Mars Hill, Stetson, and Kibby) conducted by Dr. Charlie Colgan of the Muskie School of Public Service at the University of Southern Maine, found that during peak periods of construction recent projects created and supported over 600 jobs. The average over that 7-year period was 240 jobs supported annually since 2003.⁵ Additionally, over 300 Maine businesses have benefited from the seven operating wind projects (see attached statewide map). It should not be lost on us that these jobs are occurring in the rural areas of Maine, many of which remain some of the hardest hit during the economic recession.

As you consider this development application, and those that will follow, it is important to take stock of recent activities during the First Regular Session of the 125th Legislature. There were fourteen pieces of legislation introduced this session proposing to make changes to regulations on sound, setbacks, visual impact, property tax abatements, and other infrastructure requirements. All but one of these bills was unanimously defeated in committee, serving as a continued endorsement of the Wind Energy Act and its accompanying goals and public policies. The lone bill not killed in committee, LD 1366, was turned into a state agency study of a few of the issues cited above.⁶

We believe development applications like the Bowers Wind Project offers Maine its greatest chance to jump-start its economy, protect its environment, and positively change its energy future. It is important to remember what saying 'no' to wind power in Maine means for our future: more coal, oil, and natural gas.

Thank you for your time and consideration, and I would be glad to answer any questions.

Sincerely,



Jeremy N. Payne
Executive Director

⁴http://www.windpoweringamerica.gov/pdfs/economic_development/2008/me_wind_benefits_factsheet.pdf

⁵ http://windforme.org/pdfs/Colgan%20Report_Wind%20Power%20Economic%20Impact_FINAL-3.pdf

⁶ http://www.mainelegislature.org/legis/bills/bills_125th/billtexts/HP100502.asp

Maine Businesses Benefitting From Wind Investment

A.D. Electric, Inc.
A.H. Harris & Sons, Inc.
Absolut Services, Inc.
ADA Fence Company, Inc.
Advanced Wireless Services
Aerial Survey and Photo
Affordable Well Drilling, Inc.
Allison's LLC
Ames Supply
Andy's Silkscreen
Applicators Sales & Svc., Inc.
ARC Enterprises, Inc.
Archie's, Inc.
Arnold Trail Quality Fuels
Aroostoa Cast, Inc.
Aroostook County Electric
ASC Trucking
Atmosforecast
Aubuchon Hardware Co.
Auburn Concrete
Bangor Hydro-Electric Co.
Bangor Truck & Trailer
Barton & Gingold
Bath Electrical Services Corp.
Bath Industrial Sales
Bath Printers, Inc.
Belfast Auto Supply
Bernstein Shur
Best Western White House Inn
Big Rock Ski Area
Bill Dodge Oldsmobile, Inc.
BK8 Construction
Black Bear Ladder
Blane Casey Building
Bob Barrows Chevrolet, Inc.
Brackett's Pumping
Brake Service & Parts
Briarwood Motor Inn, Inc.
Bridgman Engineering
Brunswick Ford
Bucksport True Value
C.W. Hayden
Cahill's Tire Co.
Call's Septic Service, Inc.
Cam Manufacturing, Inc.
Carquest - Bangor
Carquest - Bath
Carquest - Fort Fairfield
Carquest - Houlton
Carquest - Presque Isle
Carrabassett Printing
Cashman Communications
Central Maine Power Co.
Central Maine Rebuilders, Inc.
Central Tire Co., Inc.
Chad Little Power Equip. Inc.
Cianbro Corp.
Gintas
Clean Harbors
Clukey's
Comprehensive Land Techs.
Cooley's Commercial Tire
Daniel Chase Plowing
Dave's Hardware
Dead River Co.
Douglas Bennett & Son
Downeast Mobil Pressure Wash
Dragon Products Company, LLC
Drinkwater's Cash Fuel
Dubay Auto Parts (NAPA)
E.S. Boulos Company
Eagle Rental, Inc.
Eastern Maine Electric Coop.
Eastern Sales & Equipment, Inc.
EBS-Ellsworth Bld. Sply, Inc.
Edwin Tash, Sr.
Eldredge Lumber & Hardware
Ellis Pond Variety
EMI Electrical, Whiting
Environmental Projects, Inc.
Express Electrical
F.W. Webb Company
Fairpoint Comms - Bangor
Fairpoint Comms - Lewiston
Farmington Oil Company
Farmington Tire
Fastenal Company, Inc.
Ferris Oil - Presque Isle
Fire Tech & Safety of NE, Inc.
Firesafe Equipment, Inc.
First Settler's Lodge, LLC
Flagstaff Construction
FleetPride Inc.
FMCCADD Engineering Resource
Foss & Son, Inc.
Fotter's Market & Hardware
G.E. Godling & Son, Inc.
Gagne Precast Concrete Product
Gagnon Engineering Inc.
GES
Gilman Electrical Supply
Gil's Sanitation, Inc.
Good Jake, LLC
Goodman Wiping Cloth Co.
Goodwin

Goodwin Well & Water, Inc.
Gould Equipment
Grand Rental Station
Greg's Home & Leisure
H.C. Haynes, Inc.
H.O. Bouchard Transport
Haley Construction
Hamilton Marine
Hammond Lumber Company
Harry Kinney, Inc.
Haskell Lumber, Inc.
Henry's Mobile Home Movers
Hertz Equipment Rental
Hews Company
High Chevrolet
Hogan Tire, Inc.
Home Depot - Bangor
Home Depot - Houlton
Home Depot - Lewiston
Home Depot - Waterville
Horten Building Supplies, Inc.
Houlton Portable Toilets
HSE Gould, LLC
Hydraulic Hose & Assembly
IEC, Inc.
Ingersoll Rand Tool Sales
Inpro, Inc.
Ireland's Rubbish Service
J.L. Brochu, Inc.
Jackett Enterprises
James W. Sewall Company
JD Flagg
Jerry's True Value
Jordan Equipment Co.
Jordan Excavating
Jordan Lumber Company, Inc.
K.L. Jack & Co., Inc.
Kennebec Equipment Rental Co.
KeyBank - Bath
Kingfield Flower Shop
Kinney's Garage, Inc.
KR Builders
Kris-Way Truck Leasing, Inc.
Lakonville
Larkin
Larry Ham Construction
Lincoln Rental Systems
LogoLogic
Lowe's
M&H Logging

MacFarlane Steel Corp.
Mail It 4 U
Maine & Maritimes Corp.
Maine Commercial Tire Inc.
Maine Drilling & Blasting
Maine Fire Equipment Co., Inc.
Maine Fire Prevention Services
Maine Fire Protection Systems
Maine Dry-Acet. Supply Co.
Maine Potato Growers, Inc.
Maine Public Service Co., Inc.
Maine Radio
Maine Technical Source, Inc.
Maine Trailer
Mainly Temps
Mattingly Products Company Inc.
McFalls Auto Parts (Napa)
McLaughlin Signs
Merl Sam Dunham, Inc.
Midcoast Glass & Windows, Inc.
Mill Service & Supply, Inc.
Milton-Cat
Mountain Mechanical
Minuteman Sign Centers
Monson Companies
Morris Enterprises
Motor Supply Co.
MotoStar Tire & Auto
Munce's Lubricants
N.H. Bragg & Sons
N.S. Giles

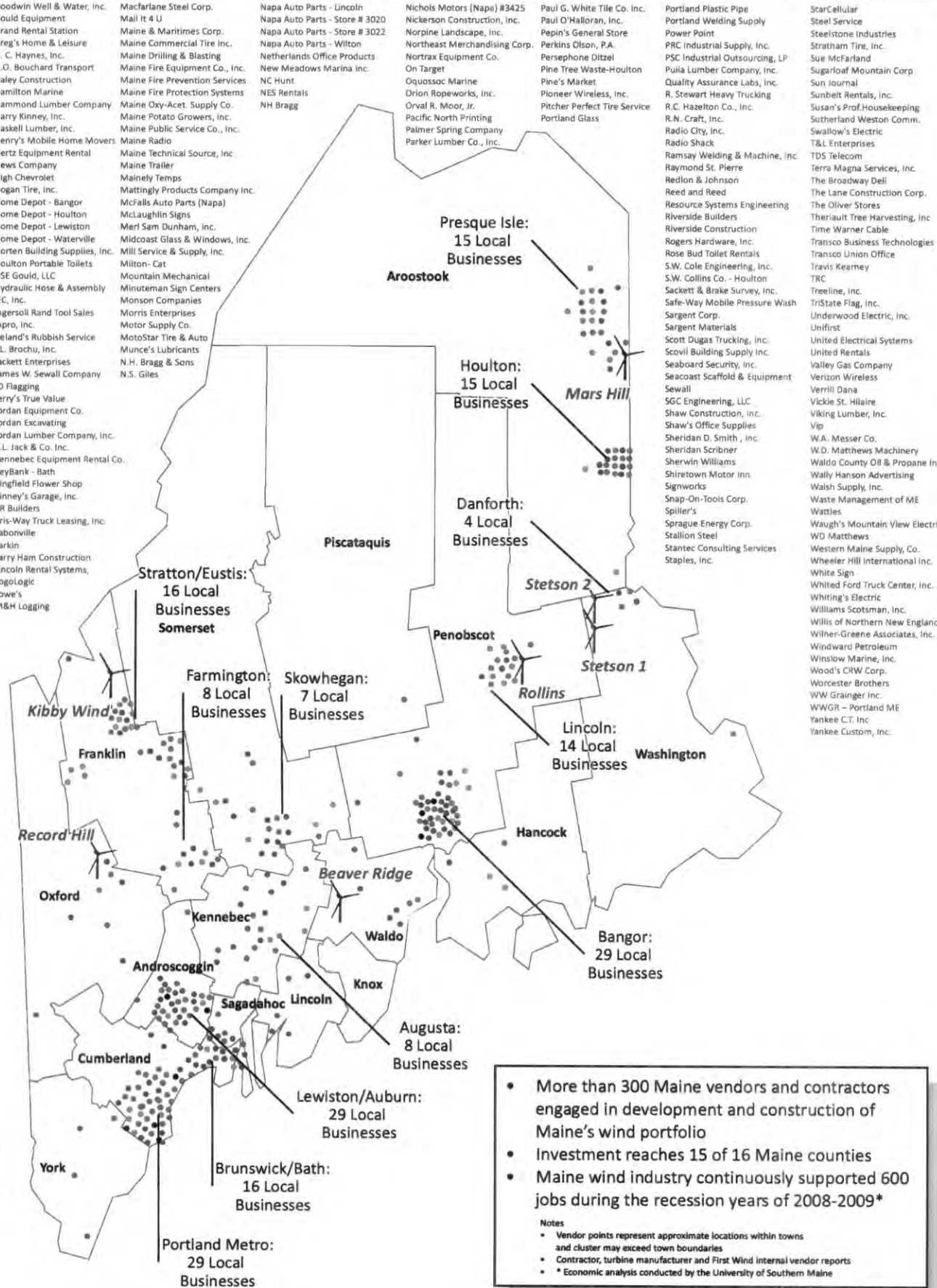
Napa Auto Parts - Lincoln
Napa Auto Parts - Store # 3020
Napa Auto Parts - Store # 3022
Napa Auto Parts - Wilton
Netherlands Office Products
New Meadows Marina Inc.
NC Hunt
NES Rentals
NH Bragg

Nichols Motors (Nape) #3425
Nickerson Construction, Inc.
Norpine Landscape, Inc.
Northeast Merchandising Corp.
Nortrax Equipment Co.
On Target
Oquossoc Marine
Orion Ropeworks, Inc.
Orval R. Moor, Jr.
Pacific North Printing
Palmer Spring Company
Parker Lumber Co., Inc.

Paul G. White Tile Co. Inc.
Paul O'Halloran, Inc.
Pepin's General Store
Perkins Olson, P.A.
Persephone Ditzel
Pine Tree Waste-Houlton
Pine's Market
Pioneer Wireless, Inc.
Pitcher Perfect Tire Service
Portland Glass

Portland Plastic Pipe
Portland Welding Supply
Power Point
PRC Industrial Supply, Inc.
PSC Industrial Outsourcing, LP
Pulia Lumber Company, Inc.
Quality Assurance Labs, Inc.
R. Stewart Heavy Trucking
R.C. Hazelton Co., Inc.
R.N. Craft, Inc.
Radio City, Inc.
Radio Shack
Ramsay Welding & Machine, Inc.
Raymond St. Pierre
Redlon & Johnson
Reed and Reed
Resource Systems Engineering
Riverside Builders
Riverside Construction
Rogers Hardware, Inc.
Rose Bud Toilet Rentals
S.W. Cole Engineering, Inc.
S.W. Collins Co. - Houlton
Sackett & Brake Survey, Inc.
Safe-Way Mobile Pressure Wash
Sargent Corp.
Sargent Materials
Scott Dugas Trucking, Inc.
Scovill Building Supply Inc.
Seaboard Security, Inc.
Seacoast Scaffold & Equipment
Sewall
SGC Engineering, LLC
Shaw Construction, Inc.
Shaw's Office Supplies
Sheridan D. Smith, Inc.
Sheridan Scribner
Sherwin Williams
Shirctown Motor Inn
Signworks
Snap-On-Tools Corp.
Spiller's
Sprague Energy Corp.
Stallion Steel
Stantec Consulting Services
Staples, Inc.

StarCellular
Steel Service
Steelstone Industries
Stratham Tire, Inc.
Sue McFarland
Sugarloaf Mountain Corp
Sun Journal
Sunbelt Rentals, Inc.
Susan's Prof. Housekeeping
Sutherland Weston Comm.
Swallow's Electric
T&L Enterprises
TDS Telecom
Terra Magna Services, Inc.
The Broadway Deli
The Lane Construction Corp.
The Oliver Stores
Therault Tree Harvesting, Inc.
Time Warner Cable
Tranasco Business Technologies
Tranasco Union Office
Travis Kearney
TRC
TreeLine, Inc.
TriState Flag, Inc.
Underwood Electric, Inc.
Unifirst
United Electrical Systems
United Rentals
Valley Gas Company
Verizon Wireless
Verrill Dana
Vickie St. Hilaire
Viking Lumber, Inc.
Vip
W.A. Messer Co.
W.D. Matthews Machinery
Waldo County Oil & Propane Inc.
Wally Hanson Advertising
Walsh Supply, Inc.
Waste Management of ME
Wattles
Waugh's Mountain View Electric
WD Matthews
Western Maine Supply Co.
Wheeler Hill International Inc.
White Sign
Whited Ford Truck Center, Inc.
Whiting's Electric
Williams Scotsman, Inc.
Willis of Northern New England
Wilner-Greene Associates, Inc.
Windward Petroleum
Winslow Marine, Inc.
Wood's CRW Corp.
Worcester Brothers
WW Grainger Inc.
WWGR - Portland ME
Yankee CT, Inc.
Yankee Custom, Inc.

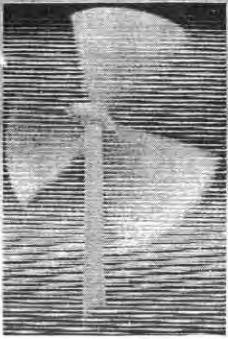


- More than 300 Maine vendors and contractors engaged in development and construction of Maine's wind portfolio
- Investment reaches 15 of 16 Maine counties
- Maine wind industry continuously supported 600 jobs during the recession years of 2008-2009*

Notes

- Vendor points represent approximate locations within towns and cluster may exceed town boundaries
- Contractor, turbine manufacturer and First Wind internal vendor reports
- * Economic analysis conducted by the University of Southern Maine

Business Category <ul style="list-style-type: none"> • Development and Construction • Electric and Utility • Equipment and Supply • Hospitality • Logistics • Support Services 		<ul style="list-style-type: none"> □ counties ⊙ Wind Projects 		<p>Maine Businesses Benefitting From Wind Investment</p>
<p>0 15 30 60 Miles</p>		<p>Map Scale 1 centimeter = 24,265 meters</p>	<p>2011-02-28</p>	



Economic Benefits, Carbon Dioxide (CO₂) Emissions Reductions, and Water Conservation Benefits from 1,000 Megawatts (MW) of New Wind Power in Maine

Wind power is one of the fastest-growing forms of new power generation in the United States. Industry growth in 2007 was an astounding 45%. New wind power installations constituted 30% of all new electric power installations. This growth is the result of many drivers, including increased economic competitiveness and favorable state policies such as Renewable Portfolio Standards. However, new wind power installations provide more than cost-competitive electricity. Wind power brings economic development to rural regions, reduces water consumption in the electric power sector, and reduces greenhouse gas emissions by displacing fossil fuels.

The U.S. Department of Energy's Wind Powering America Program is committed to educating state-level policy makers and other stakeholders about the economic, CO₂ emissions, and water conservation impacts of wind power. This analysis highlights the expected impacts of 1000 MW of wind power in Maine. Although construction and operation of 1000 MW of wind power is a significant effort, six states have already reached the 1000-MW mark. We forecast the cumulative eco-

nommic benefits from 1000 MW of development in Maine to be \$1.3 billion, annual CO₂ reductions are estimated at 2.8 million tons, and annual water savings are 1,387 million gallons.

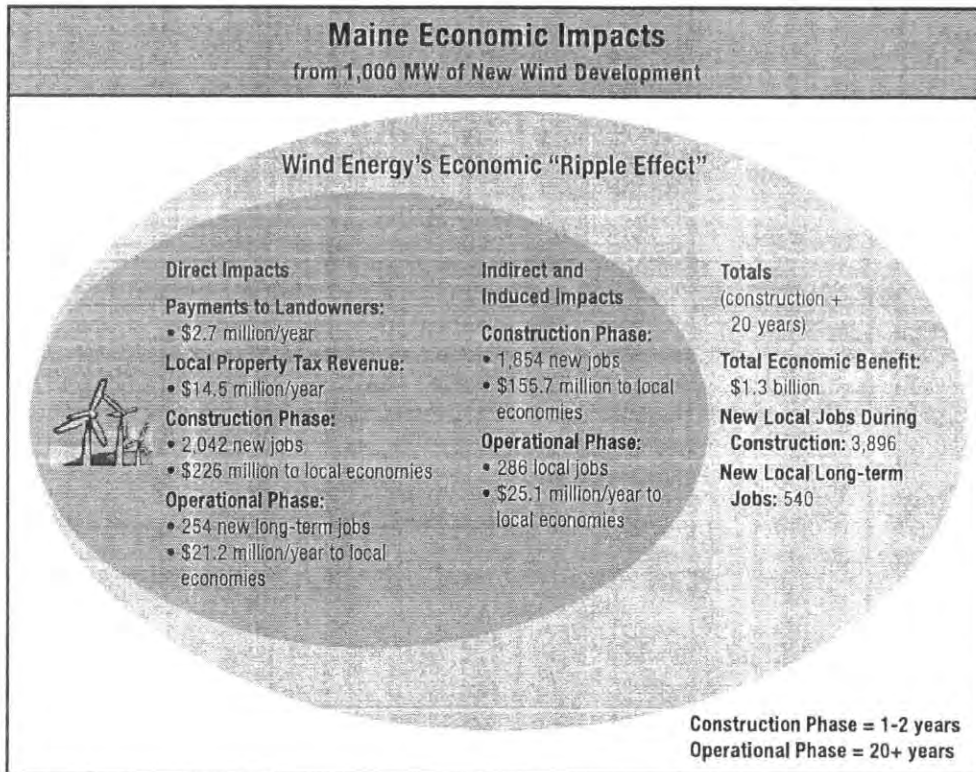
Economic Benefits

Building and operating 1000 MW of wind power requires a significant investment. But this investment will generate substantial direct, indirect, and induced economic benefits for Maine. Direct benefits include jobs, land-lease payments, and increased tax revenues. Indirect benefits include benefits to businesses that support the wind farm. Induced benefits result from additional spending on goods and services in the area surrounding the development.

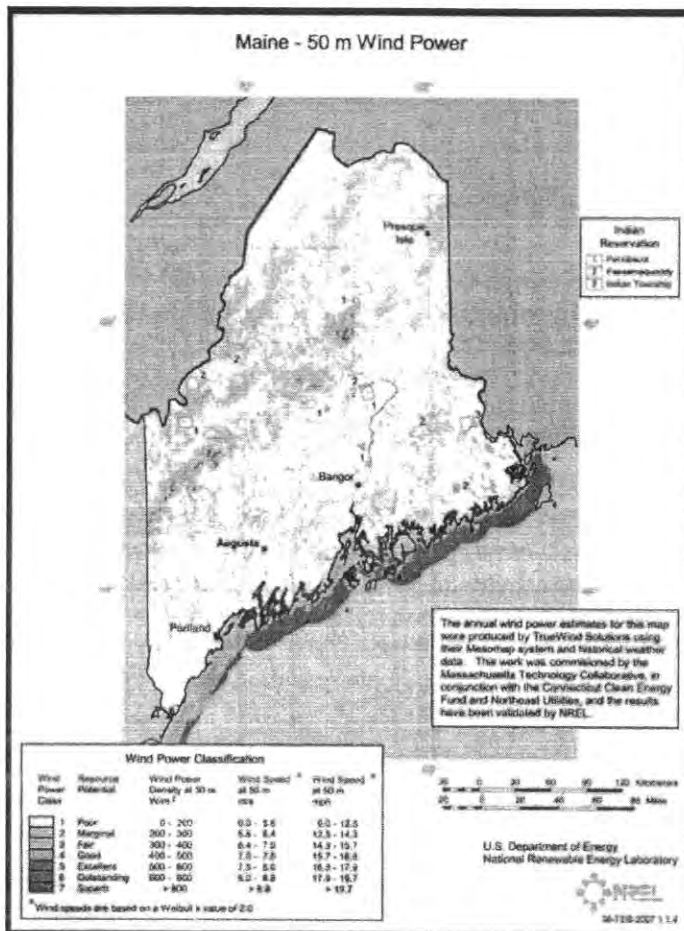
Direct impacts result from investment in the planning, development, and operation of new wind facilities. Beneficiaries include landowners, construction workers, O&M staff, turbine manufacturers, and project managers. Indirect impacts reflect payments made to businesses that support the wind facility

and include banks financing the project, component suppliers, and manufacturers of equipment used to install and maintain the facility. Induced benefits result from increased spending by direct and indirect beneficiaries. Examples include increased business to restaurants, retail establishments, and child care providers.

Drivers of economic benefits include the use of local construction companies, the presence of in-state component suppliers, local wage structures, local property tax structures, and operation and maintenance (O&M) expenditures. The projected benefits for Maine could be greatly increased by the development of a local wind supply, installation, and maintenance industry within the state.



Distribution of Wind Resources in Maine



Methodology

The data for economic analysis are primarily from interviews with state-specific contacts, including developers, power plant operators, contractors, mining and gas associations, and state property tax assessors or administrators. When interviews were not possible, information was obtained from public Web resources, state tax reports, and federal databases for current power plants. Cumulative impacts are estimated for construction and 20 years of operations. Economic impacts are 2007 constant dollars and estimated by application of NREL's Jobs and Economic Development Impacts (JEDI) model. Carbon estimates apply 2004 non-baseload CO₂ emissions rates (EPA eGRID2006 Version 2.1, April 2007). Water savings are calculated based on consumption rates for various generating technologies. Consumption rates were compiled by Western

Resource Advocates and calculated from EIA form 767 data and EPRI publications. Consumption rates are applied to the NERC region generation mix as determined from EIA form 960/920 (2006).

Data Inputs

Construction Cost	\$1,980/kW
Operations and Maintenance	\$24.70/kW/yr
Property Tax	\$14,540/MW/year
Landowner Lease Payments	\$2,667/MW/year

CO₂ Emissions and Water Conservation Benefits

In 2004, the average Maine resident emitted approximately 5.5 tons of CO₂ from electricity consumption. As a state, Maine ranked 39th in per capita CO₂ emissions from the electricity sector. CO₂ emissions are increasingly important factors as state and federal government consider policies regarding climate change while drought in the Southeast has underscored the relevance of freshwater supply issues outside of the arid and semi-arid regions of the United States.

Developing wind power in Maine will result in CO₂ emissions reductions and water savings. Choosing to build wind projects results in CO₂ reductions from decreased natural gas consumption. In addition, both fossil- and nuclear-based electricity generation consume large amounts of water. Wind power reduces our reliance on increasingly vital freshwater resources.

Annual Impacts in Maine from 1000 MW of New Wind Power

Water Savings	CO ₂ Savings
1,387 million gallons	2.8 million tons

For more information, contact:

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 Wind Powering America
 National Renewable Energy Laboratory
 1617 Cole Blvd. MS3811
 Golden, CO 80401

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October 2008 • DOE/GO-102008-2672

6/28 speaker #28

The Great Green Wind Scam

by

Jonathan Carter

Director, Forest Ecology Network

Mountaintop Industrial Wind development in Maine is both an ecological disaster and economic boondoggle. The mountaintop wind developers or as I like to call them, “**the mountain slayers and profiteers**”, are foisting upon the state an Enron like scam. This house of cards will collapse. The only questions are, when, how much damage will have occurred, and how many billions of dollars of stranded cost will the ratepayers and tax payers have to pick up?

From an ecological perspective there is absolutely no way one can defend mountaintop industrial wind. Blasting and mountaintop leveling causes irreversible damage to soils, hydrological flows, and the unique assemblages of plants and animal. Thousands of bats and birds will be killed and many species of wildlife, including bear, moose, and deer, will be forced to flee from the massive ground vibrations and the pulsating of high and low frequency noise. If as envisioned by the state 360 miles of mountaintop industrial wind is built(resulting in 50,000 acres of clearcut), the visual pollution of 400 foot towers with flashing lights and the noise pollution will penetrate thousands of square miles of the Maine wild lands and completely alter the bucolic nature of the quiet Maine countryside.

The biggest fraud being perpetrated by the mountain slayers and profiteers is that mountaintop industrial wind will somehow reduce our dependence on foreign oil and somehow result in lower greenhouse gas emissions. Three years ago, before I started to examine the science around mountaintop industrial wind, I would have whole heartily agreed – but the facts are the facts. Mountaintop Industrial Wind will not reduce our consumption of oil and will not reduce green house gas emissions. Only one percent of the electricity in the United States is produced by oil. In Maine we have two oil-fires electric plants which because of the expense are only used when peak demand outstrips supply. Three separate studies have now documented that industrial wind does not reduce greenhouse gas emissions. It is a simple concept to understand. Since wind energy is intermittent and unreliable. It cannot be counted on and thus requires back-up fossil fuel power availability. When the wind blows a fossil fuel plant has to be turned down or off. When the wind stops blowing (which can vary on a minute to minute basis) the power source has to be ramped back up. It is analogous to driving in stop and go traffic – more fuel is consumed and greater amounts of carbon are emitted.

Yet the American Wind Energy Association (a lobbyist group paid for by the wind developers) still is trying to paint industrial wind as a “green” renewable energy. This is analogous to the tobacco companies for years telling us that cigarette smoking is not hazardous to our health – and like the tobacco companies, the wind industry has its paid for scientists and environmental groups promoting their mantra.

If the ecological disaster of mountaintop industrial wind is not enough to convince one to say no, then just consider the economic impacts. **Mountaintop industrial wind would not even be a dream if it were not for the massive federal subsidies – your tax dollar!** If Maine constructs 360 miles of mountaintop industrial wind, five billion dollars of your money will be placed in the bank accounts of the wind developers. Currently, a wind developer can get 30% of a project’s cost upfront from the U.S. Treasury. This does not include the loan guarantees, accelerated depreciation, and potential production tax credits. While wind developers like to point out that when compared to other federal energy subsidies they get significantly smaller piece of the total energy subsidy pie, the fact remains that on a per megawatt produced basis wind subsidies are 12 to 20 times greater.(Wind is subsidized at \$23 per MW – next nearest subsidy is nuclear at \$1.59 per MW). The bottom-line is that mountaintop industrial wind energy is 2 to 3 times more expensive than conventional sources. If you add the cost of the necessary new transmission lines and associated facilities, the price differential gets even bigger. Why would it be in Maine’s interest to destroy our mountaintops to create energy which is

three times more expensive and will undoubtedly raise our electric rates? This becomes even more absurd when one considers the fact that Maine already has a surplus of energy – yes, we are a net exporter.

The Maine wind developers like to talk about the contribution of about the 800 million dollars spent to date on industrial wind in Maine. What they fail to mention is that most of this money was provided by the federal government subsidies – our tax dollar. In addition, the bulk of the 800 million paid for turbines that were manufactured in foreign countries. In truth, the economic benefit to Maine thus far has been small – only a few hundred temporary construction jobs. The irony is that once these projects are completed, they create very few permanent jobs. The increased cost to ratepayers and taxpayers for a small number of temporary construction jobs is many times more than the wages paid by the developers for these jobs. So how do these mountain slayers and profiteers get away with bilking billions of our tax dollars to generate wind energy by destroying our mountaintops with industrial turbines, which in the long run is going to significantly raise our energy costs? **This is a con job and a scam.**

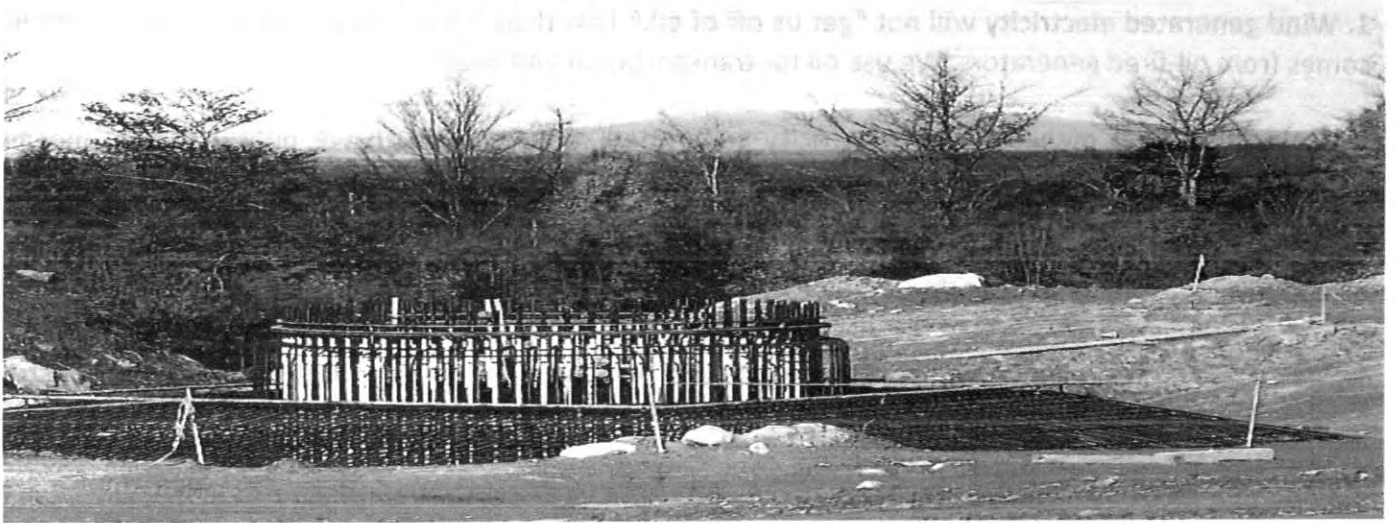
By any measure mountaintop industrial wind is uneconomical. It will not only raise electric rates (which is terrible for the business), **it will also have the unintended consequences of undermining Maine's most reliable and profitable industry – tourism and recreation.** It is our “quality of place” which brings 34 million visitors each year. It is our “quality of place” which generates 10 billion dollars of sales each year. Our quality of place is the pot of gold at the end of the rainbow. If we destroy the “golden egg”, our competitive advantage will disappear and folks will no longer want to come to vacationland where every mountain has monstrous 400 foot towers with flashing lights. Might as well stay home in New Jersey!

Another unintended consequence of mountaintop industrial wind is its impact on property values. Recent nationwide studies have documented that property values plummet 20 to 40% within a 2 mile radius of industrial wind turbines. There are already scores of folks in Maine who because of the noise and visual pollution of industrial wind would like to sell and move – however, most of these folks are stuck because nobody wants to buy their property. How can we let these profiteers do this to Maine families?

In the final analysis this house of cards the wind developers have built is going to come crashing down- not because these folks have seen the light, become less greedy, and have developed an ecological conscience. Yes like Enron, mountaintop industrial wind is based on a pyramid scheme which is unsustainable. Industrial wind not only is unreliable, but the cost, even with the huge subsidies, cannot compete with the cost of natural gas. At \$4 per million BTUs, natural gas costs would have to more than double to become more expensive than mountaintop industrial wind with its \$6.65 per million BTU subsidy. Switching to natural gas on a national scale – replacing coal – would have the added advantage of reducing electricity generation greenhouse gases by as much as 75%.

In conclusion, I want to make it clear that I believe strongly that we need to move away from fossil fuels. We need to pursue renewables – residential/community wind and solar, geothermal, micro-hydro etc. **Energy conservation and efficiency should be our top priority.** Unfortunately, intermittent and non-storable mountaintop industrial wind is not the answer. It is not the benign “green” industry some would like to have you believe. The environmental damage to this place we love and call Maine will be catastrophic. It will significantly raise our electric rates which will stifle business development and drain dollars out of the pockets of Mainers. It will reduce tourism and recreation revenue as well as strip Mainers of wealth through reduced property values. **The gold rush of wind developers, feeding at the trough of federal and state subsidies, must be stopped before Maine is transformed from a wild and bucolic paradise to an industrial wind wasteland.**

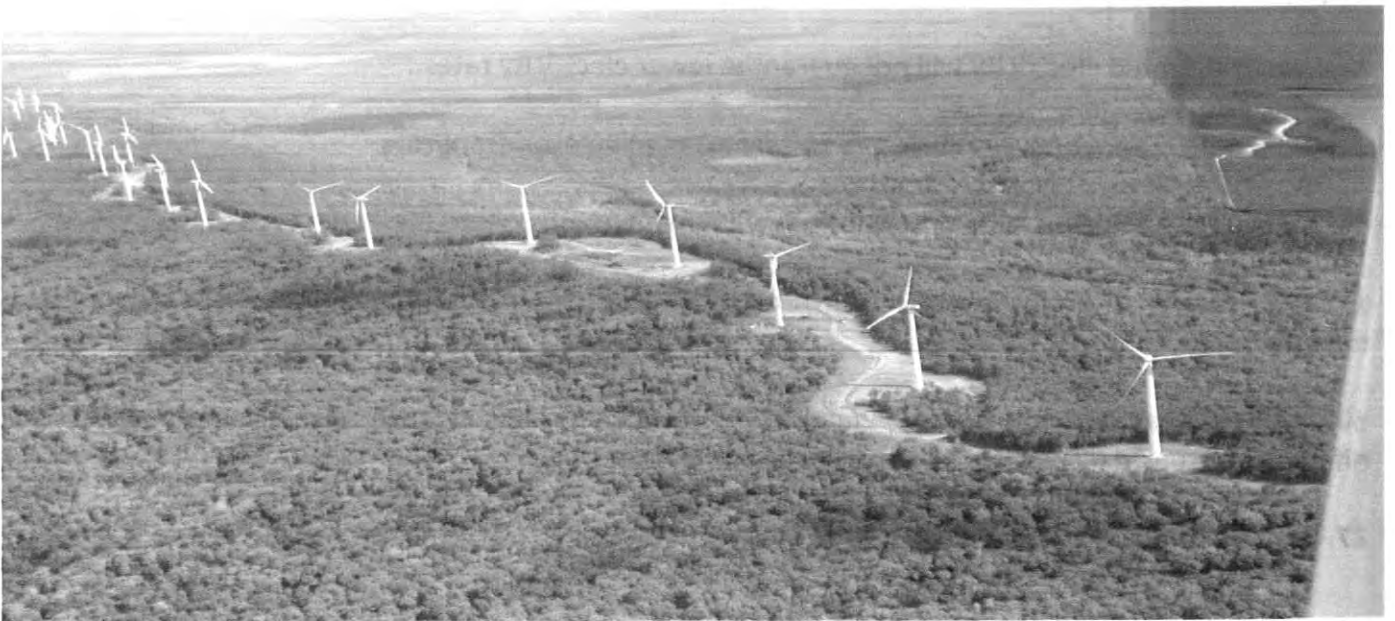
Big Wind in the Face of Katahdin



Industrial Wind Mudslide on Kibby Mountain



Stetson Mountain Destruction



The Facts about Wind Energy Development in Maine.

- 1. Wind generated electricity will not “get us off of oil.”** Less than 2 % of the electricity in Maine and in the U.S. comes from oil-fired generators. We use oil for transportation and heating.
- 2. Maine has 4300 megawatts of electricity generation capacity, though we only use 1500 megawatts on average. There is no shortage of electricity.**
- 3. Even without wind turbines, Maine is already one of the cleanest states in the nation with the highest renewable portfolio standard in the U.S..**
- 4. Maine’s 2700 megawatt goal for land-based wind generating capacity will necessitate the construction of 1200-1700 wind turbines, on over 300 miles of rural Maine’s mountains and hills.**
- 5. Wind generated electricity is high impact and low benefit.** Maine’s 2700 megawatt goal could be supplanted by the construction a SINGLE conventionally gas fueled generator, at 10-15% of the cost.
- 6. Placing wind turbines on Maine’s mountains will not enhance our energy security.** Virtually all of the fuels used to produce electricity in New England are sourced from North America.
- 7. Placing wind turbines on Maine’s mountains will not reduce coal consumption or stop mountaintop removal mining.** Maine does not use coal to produce electricity.
- 8. Placing wind turbines on Maine’s mountains will not improve Maine’s air quality.** EPA figures indicate that the burning of fossil fuels in Maine is a minor source of the state’s particulate pollution. Most fossil fuel pollutants blow into Maine from population centers many miles away.
- 9. CO2 is a problem, but wind power is not the solution.** Several studies indicate industrial wind increase carbon emissions due the ramping up and down of fossil fuel plants to back up the intermittency of the wind.
- 10. Wind turbines require sources of NEW conventional generating capacity as back-up for when the wind isn’t blowing.**
- 11. New wind power integration will require an unprecedented expansion of transmission capacity costing taxpayers an estimated 19 to 25 billion dollars.**
- 12. Wind generated electricity will not guarantee lower electricity rates..**
- 13. Wind projects are heavily subsidized by taxpayers at an exorbitant rate.**
- 14. Wind developments create notoriously few permanent jobs.**
- 15. Most of a wind project’s expenditures occur outside of Maine – primarily, overseas where turbines are manufactured.**
- 16. EVERY operating, multi-turbine, wind facility in Maine, that has been sited around people, now has significant unresolved disputes over noise and shadow flicker.**
- 17. Properties located within 2 miles of turbines lose 20 to 40% of their value.**



BOWERS WIND PROJECT – PUBLIC HEARING

Thank you very much for taking the time to listen to our comments this evening. My name is Kris Pelletier. My husband Bob and I have owned a camp on Keg Lake for 28 years. Bob's family has been summering at camps on Keg and Bottle Lakes for many years before that. My parents also wilderness canoed throughout the Grand Lakes for many summers. Every moment we spend at camp is a priceless treasure in our lives.

Because you have chosen to sit on this board it is obvious that you strongly believe in participating in and being part of the decisions that affect the State of Maine. Your commitment to this process, presumably with justice and fairness in your hearts, is to be greatly commended.

There are many arguments for and against wind power... some of them economical, many of them environmental, and some personal. I'd like to use my 5 minutes (or less) to appeal to each of you personally.

Do you choose to live in the wonderful state of Maine because of its natural beauty? Do you enjoy hunting or fishing? Perhaps you like to kayak as much as I do? Maybe you take long hikes through the woods... or snowshoe in the winter? Have you built a fire pit in your backyard to enjoy the quiet Maine evenings? Do you like to star gaze? Perhaps count satellites as they glide up the Milky Way? Do you look to the northern skies to see if the Aurora Borealis is showing its splendor?

Now imagine sitting on your screen porch in the evening and your predominant view is a row of blinking red lights... every single night, all night long, from sunset to sunup. Imagine not being able to see the northern lights because your northern view is constantly bombarded with flashes of red. Imagine looking out your window to watch the sunrise or sunset across the water only to have the beauty of the changing colors punctuated by constant red flashes of light and to see those flashes of light reflecting across the lake directly at you. Imagine not being able to sleep some night, to rise and sit quietly on your porch only to be bombarded with strobes of flashing light.

Gone is the pitch black night. Gone is the peace and quiet. The entire rhythm of life is punctuated with flashing lights and turning blades.

We come to Maine to regain our sense of peace and tranquility. We look across the lake at an every changing view as the weather brings rain, sun, fog, choppy waves and calm mirrored water. But we are never forced to see constant movement, constant blinking lights, constant reminders that human beings have chosen to permanently alter what nature has so beautifully rendered.

How many pictures we have taken of the tranquility and beauty of our surroundings? We pass those photos on to our friends to encourage them to come to the state of Maine to share in its beauty. Imagine those photos filled with tall towers of blinking red lights. Will our friends still want to join us to sit around the campfire to count satellites and ooh and ahh over the stars and the Milky Way?

One of the greatest positive aspects about the state of Maine is its natural beauty. To permanently destroy that beauty in one of the most scenic areas of this great state is to commit a heinous crime. Our camp was on your tour list yesterday. We're sorry you did not stop to visit but we invite you to come by anytime to enjoy the view. Well, maybe we should invite you to stop by this summer because that view will be dramatically altered in the near future if this project is allowed to proceed.

Thanks very much for listening.

W27 speaker # 8

Hi my name is Liz Gilman I have grown up in the town of Danforth and not that far from the Stetson Wind Farm. I graduated last year from East Grand High School where I became very familiar with the Stetson Mountain Project and have participated twice in the Outdoor Adventure Race that the high school held on the wind farm. In this race we use our map and compass skills, bike and canoe. Incorporating the wind farm into the project makes it a really unique experience.

I am also currently an adventure recreation and tourism major at Washington County Community College located in Calais Maine. **(Any questions so far)**

I don't believe that seeing turbines on the landscape is a negative thing, in fact I believe it adds to the experience and to the scenery and my peers see it the same way. For that reason, I don't believe that having turbines on Bowers Mt. will negatively impact use of the lakes or other recreational activities around the project. These wind farms actually helps bring more people to the area.

I hope ^{you} ~~the Commission~~ will approve this project.

Mon. June 27, 2011

My name is Lois Cook. I have a camp on the South side of Bottle Lake. Our camp was built in 1964. I have been coming to Bottle Lake since 1951. My father was born and raised in Wytosilock ME.

I live on Long Island in NYS. and come to Lakerille every summer. I love it here, my husband loves it here, as do my children and my grandchildren.

I oppose the wind turbine project on Bowers Mtn. because they will not only ruin the scenic view from our camp of the rolling hills, but most of all our night time star gazing. This is a big part of our Maine life. We live in a populated town in NY and we rarely look up at the stars because you don't see many because of the light pollution. Here the stars are crystal clear + we see millions more. The shooting stars are amazing. My grandchildren would never see such sights at their home in NY.

We have guests come from Ireland, England, Germany, Switzerland, Oregon ^{Fla} to see the natural beauty of Bottle Lake. They don't come to see flashing blades in the daytime and flashing red lights at night.

Please preserve our natural beauty for generations to come.

6/27 speaker # 28

The wind turbines already up are ugly eye sores and for no good reason. Why do we need to desecrate more of our mountains and lake areas here in Maine by putting up even more huge 300 ft. to 400 ft. industrial wind turbines to generate electricity when the average wind speed is less than 5 mph.? (Having gardened here in Maine for 11 years, we've listened to the weather band daily.) Wind is erratic. Either motors or CO 2 producing coal fired plants would be necessary to keep the flow of power steady -- power that we don't even need here in Maine.

And why do so many want to believe that wind turbines will reduce our dependence on foreign oil ? Nothing at the present rate is going to "reduce" our dependence on foreign oil. Over 70% of remaining oil reserves lie under the soil of Islamic nations of Asia from the Red Sea to Indonesia. The U.S. is in Afghanistan, Iraq, and Libya for the sake of oil. Oil that is for the U.S. military industrial complex, for the ruling corporations, for the super rich (1% of the American population) -- not for the rest of us.

Why do we need to believe that the people are going to benefit from these turbines when the money is going to go to First Wind (a real economic scam -- a scramble for federal dollars !), and to a few landowners who don't seem to care about what they are doing to ruin the beauty of the Earth for the majority of the people, of the wildlife, and of the forests that are needed for CO 2 absorption ?

If we listen to the mantra that says industrial wind turbines are "green", we're buying into a lie reminiscent of Saddam Hussein's WMD's, WMD's, WMD's... "Répétez à moi!" says the dominant business culture.

Why can't we have smaller wind mills at individual homes or towns, or at the local transfer station whenever power is needed ? Why can't we live more simply -- and yet quite well -- with less rather than more ? Fewer material goods rather than more ?

Do we really need to desecrate the beauty of Maine so as to sell electricity out of state to run the flat screen T.V.'s of the rich in Massachusetts or Connecticut ?

So my question is: Why do we need to keep approving of First Wind's assault on our Maine mountains and lakes ?

Are we crazy ? Are we just stupid ? Are we too cowed by the powers that be who could and would squish us if we don't do their bidding ?

Sincerely,
Margie Wagner Deschene
Margie Wagner Deschene
Grand Falls, Maine

TESTIMONY BEFORE LURC ON 6/27/11 RE BOWERS MT./KOSSUTH

My opposition to the Bowers Mountain / Kossuth Township wind complex arises from research on the Federal Energy Regulatory Commission (FERC) web site and on data from European countries where grid-scale wind complexes have a longer history.

To begin with, the reason why First Wind is proposing to place 17 gigantic 2.3 MW turbines and 10 mammoth 3.0 MW turbines on these pristine promontories is because of the poor performance of the 1.5 MW GE turbines on Stetson, Jimmey and Owl Mountains in Washigton County. In one recent quarter, Stetson II only yielded 14% of installed capacity of electricity actually produced.

Will these twirling white giants with ever-blinking red eyes in the night sky reduce our carbon footprint? Help reduce global warming? NO. Anyone in this room who thinks so has not done his or her homework. Maine is not a prairie. The first victims of industrial wind complexes in our beautiful state are the thousands of trees that naturally absorb many thousand of tons of CO2. Cut down – permanently eliminated. Combined with this loss is the overproduction of CO2 caused by the constant ramping up and down of natural gas turbines needed to be kept active to replace energy on the grid because of the intermittent winds of inland Maine. Overall, considering the manufacture and transport of turbines and blades, construction of wind complexes, their substations and transmission lines, and drawing power from the grid to keep the turbines viable in our frigid winters, there is not a reduction of CO2 but rather an increase. Dr. Sarah Myhill in 2009 states that during its lifetime, one 3MW turbine will “save” 6,000 tons of carbon but “cost” 27,000 to 40,000 tons of carbon – a 19% to 81% ratio very unfavorable to industrial wind complexes.

Likewise, the John Muir Trust of Scotland (unlike some of our so-called environmental organizations in Maine) has opposed many industrial wind complexes in Scotland and severely questioned the reliability of information given to the public by grid-scale wind developers – especially about their claims of savings with regard to CO2.

Maine will not be reducing its dependence on oil either because less than 2% of our electricity comes from oil and I have yet to see any electric cars in my neck of the woods. All in all, we have a wind SCAM going on in Maine right now like the ethanol-from-corn CON going on the mid-west. Folks are seeing through this corn CON. Every day more and more people in Maine are waking up to the wind SCAM in our midst.

You, the LURC Commissioners, have begun to realize the environmental damage in Maine done by the construction of these huge industrial wind complexes. It is time you spoke up even louder to oppose the expedited wind farm law, passed so foolishly by the Maine legislature a few years ago, that zoned industrial most of the rural regions of our state. You are beginning to realize the loss of wild habitat, harm to wildlife, decrease of tourists and other unfortunate impacts of these useless wind complexes. Please do not grant to First Wind the right to ruin the beautiful, wild, pristine Downeast Lakes region of our state or very shortly we will loose the moniker of “Vacationland.”

Marilyn Roper



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K:NOT

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Do they cut CO2?

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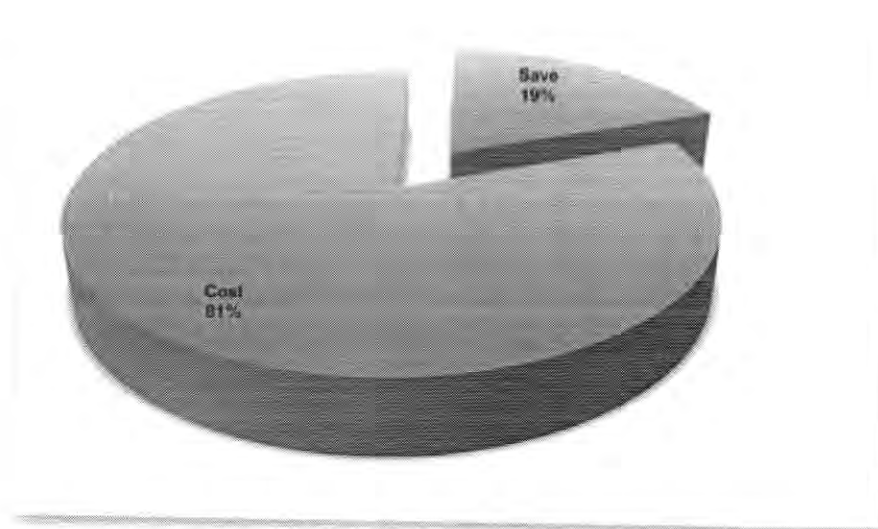
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22. Barbara J Frey, BA, MA and Peter J Hadden, BSc, FRICS on "Noise radiation from wind turbines installed near homes: effects on health", February 2007. www.windturbineoisehealthhumanrights.com
23. Dr. Sarah Myhill, "The Carbon Equation for Individual Wind Farms", January 2009.

Wind turbines and global warming

Wind turbines are being promoted by the UK government as an effective strategy to reduce greenhouse gas emissions and thereby counteract global warming trends. However, estimates of the contribution of wind power to a reduction in CO2 emissions are generally exaggerated.

To date it has been assumed as self evident that wind generated electricity will save carbon. However recent studies by Dr. Sarah Myhill show there is very little evidence that this is the case and indeed mounting evidence that wind generated power is not carbon friendly. Current available figures (January 2009) bring her to conclude that *during its lifetime one 3MW turbine will "save" 6,356 tonnes of carbon and "cost" somewhere between 27,213 and 40,773 tonnes of carbon.*



% Carbon used (cost) vs. saved with an industrial wind turbine

The BWEA assumes that wind will replace coal-fired capacity unit for unit and bases its calculation for emission savings on this assumption. The BWEA figures are used to support developers' claims in their planning applications for wind farms. The developers of the Blaengwen wind farm claim a carbon dioxide offset figure of 0.85 tonnes per MWh, based on the assumption that "...the electricity generated by wind turbines effectively replaces the output of coal-fired power stations, unit for unit." (see ref 5)

When wind-generated electricity is introduced into the grid system, it cannot be said with any certainty which type of electricity source it is replacing. It could be replacing coal, or gas, or even an emission-free source such as hydroelectricity or nuclear power. According to DTI's Wind Energy Fact Sheet (see ref 6): "The UK electricity market is extremely complex ...and it is not possible to make categorical statements on how wind changes the generation mix."

Therefore, it is more accurate to use a 'grid average' to reflect the uncertainty as to the type of power, i.e. coal, gas, nuclear, etc, that is displaced when wind power supplies energy to the national system. Both the DTI and the Carbon Trust use a 'grid average' figure of 43 tonnes of carbon dioxide emissions per year when calculating potential emissions savings. This factor of 0.43 tonnes per MWh is about half that claimed by the BWEA and wind farm developers (see above). After 2010, the DTI expects that the generation mix will have changed and that wind power will be operating in conjunction with Combined Cycle Gas Turbines (CCGT). Therefore, post 2010, emissions savings from wind turbines should reflect CCGT displacement, which at 0.27 millions tonnes per MWh is even less than the emission savings figures currently accepted by the DTI and the Carbon Trust.

The estimated emission savings from wind turbines must be balanced against the emissions from the fossil-fuelled spinning reserve required to balance supply and demand when wind power is brought into the grid system. (see ref 7)

Quoting from a study commissioned by the Renewable Energy Foundation in 2004:
[Reserve] capacity is placed under particular strains when working in this supporting role because it is being used to balance a reasonably predictable but fluctuating demand with a variable and largely unpredictable output from wind turbines. Consequently, operating fossil capacity in this mode generates more CO₂ per kWh generated than if operating normally... Thus the CO₂ saving from the use of wind in the UK is probably much less than assumed by Government advisors, who correctly believe that wind could displace some capacity and save some CO₂, but have not acknowledged the emissions impact of matching both demand and wind output simultaneously. As a result, current policy appears to have been framed as if CO₂ emissions savings are guaranteed by the introduction of wind-power, and that wind power has not concomitant difficulties or costs. This is not the case. (see ref 4)

The amount of CO₂ emissions a wind turbine can save is a matter of conjecture since there are no mechanisms in place to take accurate measurements. However, Denmark, the country with the most wind-generated electricity per capita, has shown no reduction in its overall CO₂ emissions; in fact, Denmark's CO₂ emissions are rising. (see ref 8)

Electricity generated by wind turbines is emission-free at the point of generation, and to this extent it does not contribute to global warming. However, there are many emissions and pollutants associated with turbine manufacture and delivery and in the construction of the wind farm site with its access roads, grid connections, substations, etc. Each turbine foundation requires between 500 and 1,000 tonnes of concrete and aggregate; concrete manufacture is one of the largest sources (about 7%) of man-made CO₂ emissions. All these industrial processes contribute to global warming.

Many wind farms are being proposed on Forestry Commission land. Building a wind farm on forested land involves chopping down vast areas of trees, which, if left standing, would absorb CO₂. Wind turbines, unlike trees, do not remove CO₂ from the atmosphere. According to the Environment Agency, one acre of coniferous trees absorbs 3.5 tonnes of CO₂ each year. However, when trees are clear felled, the decomposition of vegetation that is left behind actually adds to the CO₂ emissions problem. At the Cefn Croes wind farm site, not only were acres of forest clear felled, but deep ancient peat bogs were also stripped off and drained, releasing stored CO₂ and methane into the atmosphere. (see Cefn Croes photo-gallery) As the peat gradually dries out, it will continue to oxidise and release even more CO₂.

Electricity generation accounts for only one-third of our CO2 emissions, the bulk comes from aircraft, vehicle exhaust, domestic heating and industrial processes. According to DTI estimates, reaching the 2010 renewable energy targets would achieve a reduction of about 2 million tonnes of CO2 per year. Even if this were achievable, it is not impressive when viewed in relation to national and global emission rates. A 2-million-tonne reduction of CO2 is a mere 1.7% of total UK emissions (550 million tonnes) and 0.0004% of world emissions (24,000 million tonnes). Global emissions are expected to rise by 2% a year, mainly from China and India. Wind turbines can have no significant effect in reversing, or even slowing down, these global warming trends.

A detailed and balanced report can be found here...

<http://www.masterresource.org/2009/11/wind-integration-incremental-emissions-from-back-up-generation-cycling-part-i-a-framework-and-calculator/>

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Calculating carbon savings from wind farms on Scottish peat lands - A New Approach

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Appendix 2: Calculating Potential Carbon Losses & Savings from Wind Farms on Scottish Peat lands: a total life cycle perspective

Wind Farms and Carbon Savings on Peat lands

This paper presents a method to calculate carbon emission savings associated with wind farm developments on Scottish peat lands using a full life cycle analysis approach. This can be used to look at the wider emissions and savings of carbon associated with windfarms if required in comparison to other energy sectors. It is supplemented by an EXCEL spreadsheet (Nayak et al., 2008) containing the calculations. It is assumed that good management practice is followed, as outlined by the Scottish Executive (2006), to avoid catastrophic losses of carbon, such as by peat landslides. The full carbon calculator can be obtained from the following hyperlink: <http://www.scotland.gov.uk/350465>.

Summary

Large scale wind farm development proposals in Scotland have raised concerns about the reliability of methods used to calculate the carbon savings associated with wind farms, as compared to power derived from fossil-fuel and other more conventional sources of power generation. This is largely due to the siting of wind farms on peat lands which represent large stores of terrestrial carbon. Government policy is to deliver renewable energy without environmental harm and to deliver biodiversity objectives, including the conservation of designated wildlife sites and important habitats such as peat lands. The implications for carbon emissions of developing a wind farm are therefore just one set of factors that should be included in the consideration of future change. This note provides a revised methodology to explore potential carbon emission savings and losses associated with a wind farm development in forestry or on peat land. The total carbon emission savings from a wind farm are estimated with respect to emissions from different power generating sources, loss of carbon due to production, transportation, erection, operation and dismantling of the wind farm, loss of carbon from backup power generation, loss of carbon-fixing potential of peat land, loss of carbon stored in peat land, carbon saving due to improvement of habitat and loss of carbon-fixing potential as a result of forestry clearance.

A2.1. Introduction

The 2007 renewable energy policy of the Scottish Government (SG) has a target of 50% of electricity generated in Scotland to come from renewable sources by 2020, with an interim target of 31% by 2011 (Scottish Government, 2008).

Scottish Natural Heritage (SNH) stresses the value of renewable sources of electricity generation in tackling climate change and provides advice on the siting of renewable energy installations to ensure that the technology is best matched to the potential offered by a location to minimise adverse impacts on the natural heritage (SNH, 2007, pages 23, 36).

The presence of extensive areas of forestry on and in the vicinity of the wind farm site can significantly reduce the yield of wind energy, so it has often been the practice to clear existing forestry from the area surrounding the site prior to wind farm development. The cleared land has then often been left as open ground. However, to reduce the long term loss of woodland alternative approaches should always be considered - such as 'key-holing' combined with replacing felled trees with short rotation coppice/ short rotation forestry or low-height native woodland. SNH published a Technical Guidance Note in 2003 for calculating carbon 'payback' times for wind farms. The 2003 guidance adopted a relatively simple approach towards impacts on peat land hydrology and stability. This method presented here is a more comprehensive approach towards these issues.

A2.2. Background

Organic soils are abundant in Scotland, containing 2735 Mt carbon. Scotland contains 48% of the soil carbon stocks of the UK (Bradley et al., 2005). Depending on land management, organic soils can either act as carbon sinks or as carbon sources. Soils in Scotland act as a carbon sink, absorbing 1.26 Mt CO₂-C more carbon dioxide than they release due to the impacts of changes in land use, including forestry (Key Scottish Environment Statistics, 2007). Estimates of emissions and removals from this sector are particularly uncertain as they depend on assumptions made on the rate of loss or gain of carbon in Scotland's carbon rich soils (Key Scottish Environment Statistics, 2007). Land use change and climate change can cause emissions of GHGs; for example, land use change on organic soils is estimated to be responsible for 15% of Scotland's total greenhouse gas emissions.

Large scale wind farm development on organic soils (largely peats) has raised concerns about the reliability of methods used to calculate the time taken for these facilities to reduce greenhouse gas emissions. This method covers the potential carbon savings and carbon losses associated with wind farm developments as follows: Text in bold denotes the area of uncertainty that this method was designed to address

carbon emission savings (based on emissions from different power sources)

loss of carbon due to production, transportation, erection, operation and dismantling of the wind farm
loss of carbon from backup power generation

loss of carbon-fixing potential of peat land

loss and/or saving of carbon stored in peat land (by peat removal or changes in drainage)

carbon saving due to improvement of habitat

loss and/or saving of carbon-fixing potential as a result of forestry clearance.

A2.3. Carbon emission savings

Emissions may be quoted in terms of tonnes of CO₂ or tonnes of C. The conversion figures are: 1 tonne C = 3.667 tCO₂

$$1 \text{ tCO}_2 = 0.27 \text{ tC}$$

Authoritative figures for calculating emissions from various sources, including power stations, are given by the *Guidelines to Defra's GHG conversion factors for company reporting* (Defra, June, 2007). Worked examples, including one for the carbon saved by generating electricity from wind energy as opposed to the conventional mix (including fossil fuel sources), are given by *The Carbon Trust* (www.carbontrust.co.uk).

Carbon dioxide emissions from energy production depend on the fuel used (Table A2.3.1).

Fuel	Carbon dioxide released during combustion (tCO ₂ MWh ⁻¹)
Natural Gas	0.185
Gas/Diesel Oil	0.250
Petrol	0.240
Fuel Oil	0.267
Burning Oil	0.245
Coal	0.329
Coking Coal	0.332
LPG	0.214
Other Petroleum Gas	0.206
Aviation Spirit	0.238
Aviation Turbine Fuel	0.245
Naphtha	0.237
Lubricants	0.250
Petroleum Coke	0.343
Refinery Miscellaneous	0.246
Renewables	0.000

Table A2.3.1. Carbon dioxide released during combustion (Defra, June 2007) ¹.

The emissions of carbon dioxide vary with improvements in technology, so updated emission factors should be used in the calculations.

For electricity production, the above emissions are multiplied by 2.6 to allow for inefficiencies in energy transformation, mainly due to heat loss ² (the factor 2.6 assumes 38.5% efficiency, Defra, 2001). Emission factors taken across the mix of electricity sources supplying the UK grid as a whole (i.e. grid mix), for coal fired electricity and for fossil fuel sourced electricity generation alone (i.e. fossil fuel mix) are given in table A2.3.2.

Energy	Emission factor, E _{fuel} (tCO ₂ MWh ⁻¹)
Grid Mix ³	0.43
Coal Fired	0.86
Fossil Fuel Mix ⁴	0.607

Table A2.3.2. Carbon dioxide emission factors for electricity generation.

A2.4. Carbon emission savings from wind farms

Carbon emission savings are calculated using the emission factor, E_{fuel}, for the counterfactual case for power generation. If it can be assumed that the contribution from renewable sources would not be displaced by wind generation, these sources should not be included in the emission factor used to calculate carbon savings. For technical reasons, nuclear power generation is not affected by renewable energy generation, so should also be omitted from the emission factor used. This suggests that carbon emission savings from wind farms should be calculated using the fossil fuel sourced grid mix as the counterfactual, rather than the grid mix. The fossil fuel mix emission factor to use could be either the average fossil fuel mix, revised on an annual basis, or a range calculated from a 5 year average (2002-2006 = 0.607 tCO₂ MWh⁻¹). Discussion is underway between the British Wind Energy Association (BWEA) and the Advertising Standard Agency (ASA) on the basis of the values which will be publicised.

This note follows the example given by The Carbon Trust (2004) adapted for coal fired generation, fossil fuel mix generation and the overall generating grid mix. A renewable energy development will have a maximum potential to 'save' carbon emissions if it is substituting coal fired generation. However, in most circumstances it is not possible to define the electricity source for which a renewable electricity project will substitute. The calculations in this Note include options for three sets of figures i.e. substitution for coal generated electricity, substitution for fossil fuel generated electricity and substitution for grid mix.

Because of the variability of the wind, the amount of energy a wind farm actually produces, e_{out} (MWh yr⁻¹), is a function of the capacity factor, p_{cap} (%), at the site, as well as the number of turbines, n_{turb}, and the turbine capacity, c_{turb} (MW).

$$E_{\text{out}} = 24 \times 365 \times \frac{P_{\text{cap}}}{100} \times n_{\text{turb}} \times c_{\text{turb}}$$

Capacity factors for Scotland range between 27% and 34% (DTI, 2006). Site specific capacity factors may be determined at the site planning stage, and should be used preferentially in these calculations. If these are not available, calculations for Scotland should be repeated with capacity factors 27% and 34% to give

estimates of the lowest and highest carbon emission savings. For calculations in other countries, the appropriate published range of capacity factors should be used.

The annual emission savings, S_{fuel} ($\text{tCO}_2 \text{ yr}^{-1}$), are estimated by multiplying the total annual energy output, e_{out} (MWh yr^{-1}), by the emission factor, E_{fuel} ($\text{tCO}_2 \text{ MWh}^{-1}$), for the counterfactual case (i.e. coal fired generation, fossil fuel mix generation and average UK grid mix - see paragraph 9)

$$S_{\text{fuel}} = e_{\text{out}} \times E_{\text{fuel}}$$

Estimates of carbon emission savings are shown here for a real, but unnamed case-study with a rated capacity of 134 MW (see section A2.13 for a detailed description of the wind farm).

Power Generation Characteristics	
No. of turbines	67
Turbine capacity (MW)	2
Power of wind farm (MW)	134
Capacity factor (percentage efficiency)	30
Annual energy output from wind farm (MWh yr^{-1})	352152

Counterfactual emission factors	
Coal-fired plant emission factor ($\text{tCO}_2 \text{ MWh}^{-1}$)	0.78
Grid-mix emission factor ($\text{tCO}_2 \text{ MWh}^{-1}$)	0.43
Fossil fuel-mix emission factor ($\text{tCO}_2 \text{ MWh}^{-1}$)	0.607

Wind farm CO ₂ emission saving over...	Carbon Dioxide Saving ($\text{tCO}_2 \text{ yr}^{-1}$)
... coal-fired electricity generation	274679
... grid-mix of electricity generation	151425
... fossil fuel - mix of electricity generation	213756

Figure A2.4.1. Worksheet 1. Wind farm CO₂ emission saving

A2.5. Loss of carbon due to production, transportation, erection, operation and dismantling of wind farm

Ideally, a full life cycle assessment should be carried out to calculate the carbon emission savings of a wind farm. This may be prohibitively expensive on a site by site basis so generic data could be used instead.

Carbon emissions from the full life cycle of a wind farm include CO₂ emissions that occur during production, transportation, erection, operation, dismantling and removal of turbines, foundations and the transmission grid from the existing electricity grid, E_{life} ($\text{tCO}_2 \text{ MW}^{-1}$). Emissions reported in the peer-reviewed literature have a range of 0.006 (White and Kulcinski, 2000) to 0.034 $\text{tCO}_2 \text{ MWh}^{-1}$ (White, 2007). Assuming a wind farm lifetime of 25 years and a capacity factor of 30%, this equates to emissions of 394 to 8147 $\text{tCO}_2 \text{ MW}^{-1}$. Very high emissions associated with a high grid mix used in production (e.g. Japan, 1.237 $\text{tCO}_2 \text{ MWh}^{-1}$ (Lenzen and Munksgaard, 2002) have been excluded from this analysis.

Defensible figures for the specific wind farm should be used wherever possible, but if these are unavailable, carbon dioxide emissions due to the turbine life, L_{life} (t), can be estimated from the turbine capacity, c_{turb} (MW), using the following equation. This equation was derived using data from 18 European sites with a highly significant fit ($P > 0.95$).

$$L_{\text{life}} = 138 + (286 \times c_{\text{turb}})$$

Evaluation against independent data indicates that using this equation instead of site specific measurements will introduce an average error in estimated carbon dioxide emissions of 39%. However, the uncertainty in estimated carbon payback time introduced by this error is small and decreases with turbine capacity: uncertainty is less than 6 months for a turbine capacity under 0.5 MW; less than 1.5 months for a turbine capacity between 0.5 and 1 MW, and approximately 1 month for a turbine capacity over 1 MW. Note that inclusion of a life cycle figure for wind farms would ideally require that equivalent life cycle costs for conventional power sources are included in the carbon emission savings figure. However, in the absence of comparative figures for coal and gas generating plants, it should be noted that this is an over-estimate of the life cycle costs of a wind farm. A comprehensive life cycle assessment of a modern UK wind farm would provide more robust figures.

For the example wind farm, the CO₂ emissions due to production, transportation, erection, operation and dismantling, E_{life} , is given in the environmental statement as 176000 $\text{tCO}_2 \text{ wind farm}^{-1}$.

Calculation of emissions due to turbine life from energy output	
CO ₂ emissions due to turbine life (t CO ₂ MW ⁻¹)	1314
Power of windfarm (MW)	134
Total calculated CO ₂ emission of the wind farm due to turbine life (t CO ₂ wind farm ⁻¹)	176076
Selected value for emissions due to turbine life (t CO₂ wind farm⁻¹)	
176076	
Wind farm CO ₂ emission saving over...	
coal-fired electricity generation	274679
grid-mix of electricity generation	151425
fossil fuel - mix of electricity generation	213766
Additional CO ₂ payback time of wind farm due to turbine life (eg. manufacture, construction, decommissioning)	
Coal-fired electricity generation	0.64
Grid-mix of electricity generation	1.10
Fossil fuel - mix of electricity generation	0.82

Figure A2.5.1. Worksheet 2. CO₂ loss due to turbine life

A2.6. Loss of carbon due to backup power generation

Because wind generated electricity is inherently variable, accompanying backup power is required to stabilise the supply to the consumer. The extra capacity needed for backup power generation, p_{back} , is currently estimated to be 5% of the rated capacity of the wind plant if wind power contributes more than 20% to the national grid (Dale et al., 2004). Note that this estimate will be revised in a report commissioned by the Scottish Government, which is shortly to be published.

If wind generated electricity contributes less than 20% to the national grid, the extra capacity needed for backup is assumed to be zero ($p_{back} = 0\%$).

The reserve capacity required for backup, $c_{reserve}$ (MWh yr⁻¹), is estimated from the number of turbines in the wind farm, n_{turb} , the turbine capacity, c_{turb} (MW), and the extra capacity needed for backup power generation, p_{back} (%):

$$c_{reserve} = (365 \times 24) \times \left(n_{turb} \times c_{turb} \times \frac{p_{back}}{100} \right)$$

The total loss of carbon emission savings due to backup power generation depends on the type of energy used to provide the backup. Here it is assumed that fossil fuel provides the backup, although the payback time is calculated assuming the different counterfactual cases as before.

The backup power generates energy which is used, so it is not attributable to the wind farm losses. However, additional emissions result from reduced thermal efficiency of the reserve generation, p_{therm} (%). The additional emissions are approximately 10% ($p_{therm} = 10\%$). The total loss of carbon emission savings due to backup power generation, L_{back} (t CO₂), is calculated from the additional emissions, p_{therm} (%), the reserve capacity required for backup, $c_{reserve}$ (MWh yr⁻¹), the backup fuel emission factor, E_{fuel} (t CO₂ MWh⁻¹ - see paragraph 9), and the life time of the wind farm, t (years).

$$L_{back} = p_{therm} \times c_{reserve} \times E_{fuel} \times t$$

The *Renewable Energy Statistics Database for the UK (2008)* states that in 2006, 23% of the electricity generated from renewables was from wind energy, p_{wind} , (offshore and onshore). Taking this as an upper limit, and assuming a linear increase in the contribution of wind power over time, the contribution of wind power to the national grid will not exceed 20% until 2038.

$$t_2 + \left(\left(\frac{t_2 - t_1}{P_{wind} (p_{renew,2} - p_{renew,1})} \right) \times (20\% - (p_{wind} \times p_{renew,2})) \right) = 2038$$

Because the national grid operates over the whole of the UK, it is argued that the UK target should be assumed ($p_{renew,2} = 20\%$ by $t_2 = 2020$; BERR, 2008) rather than the Scottish Government target. Taking the 2005 (t_1) figure of 8.5% ($p_{renew,1}$) contribution of renewable energy to the UK national grid, the contribution of wind power to the UK national grid will not exceed 20% until 2107. The case-study wind farm was officially opened in 2006 (t_0), with an estimated lifetime (t) of 25 years. Because the average percentage contribution of onshore wind energy to the national grid is less than 20% over the lifetime of the wind farm, the extra capacity required for backup, $c_{reserve}$, is assumed to be 0%. This then gives a reserve capacity of 0 MWh yr⁻¹, which gives an additional payback time of 0 years.

If the current contribution to wind generated electricity had been greater than 20%, the extra capacity required for backup, $c_{reserve}$, would have been assumed to be 5%. This then gives a reserve capacity of 5869 MWh yr⁻¹, which results in an additional payback time for the fossil-fuel mix counterfactual of 0.42 years (5 months).

6/28/11

DEAR MEMBERS OF LURC

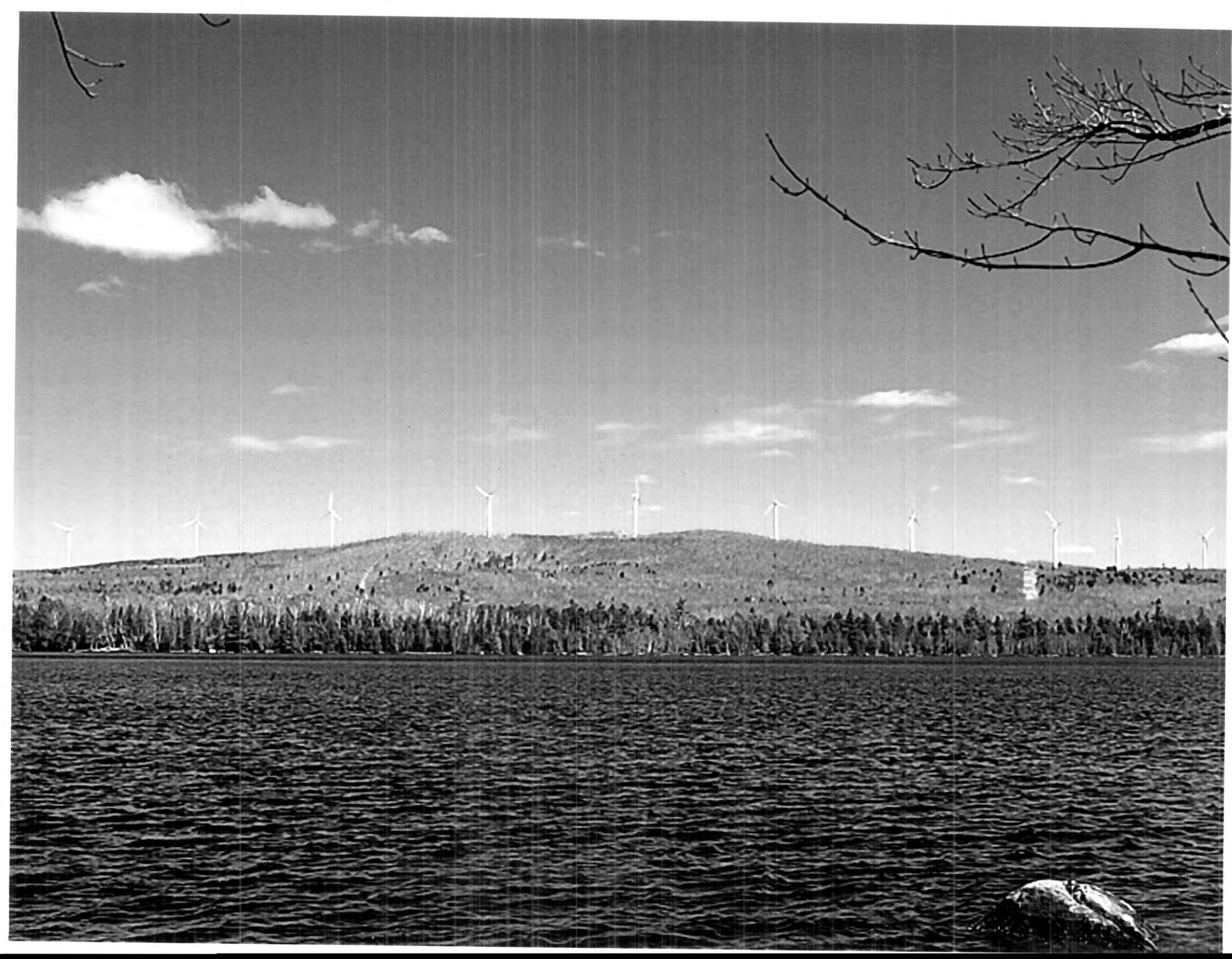
MY NAME IS MARK GRAY. I AM A RESIDENT OF HAMPDEN, ME. AND PROPERTY OWNER IN THE VILLAGE OF GRAND LAKE STREAM, ME. MY FAMILY AND I HAVE HAD THE HOUSE IN GLS SINCE 2001 AND USE IT AS A VACATION HOUSE AND BASE OF OPERATION FOR MY WORK AS A MAINE GUIDE EACH FALL.

I AM HERE THIS EVENING TO EXPRESS MY EXTREME OPPOSITION TO THE BOWERS MTN. INDUSTRIAL WIND PROJECT. SIMPLY PUT, I AM DISGUSTED THAT RUNNING OUR RIDGETOPS, VIEWSHED, AND ADULTERS FOR THE PURPOSE OF HEAVILY SUBSIDIZED ELECTRICITY IS EVEN BEING CONSIDERED.

PLEASE HAVE THE COMMISSIONER TO REFUSE PERMITTING THIS INDUSTRIAL WIND PROJECT, FOR THE PEOPLE OF LINCOLN, VEE, AND DANFORTH IT IS ALREADY TOO LATE. STETSON AND ROWINS MOUNTAINS HAVE ALREADY BEEN DESTROYED.

SINCERELY

MARK E. GRAY



6/27 speaker # 42



SPORTSMAN'S ALLIANCE of MAINE

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My name is Matt Dunlap from Old Town, and I am the Executive Director of the Sportsman's Alliance of Maine. Thank you for considering my testimony today.

SAM is Maine's largest member organization dedicated to the conservation of our natural resources and the defense of our sporting heritage.

These are hard times for sportsmen in northern and downeast Maine. The collapse of the deer population has not only demoralized recreational hunters—it's been an economic disaster in a region that really can't bear much more bad news.

We believe the First Wind proposal has a lot of good news to offer.

First, a disclaimer. We don't pretend to understand a lot about the development of renewable energy. In fact, even after an electrician explained it to me, I don't know much about the differences between amperes, ohms, volts or watts. But we do know a lot about conservation, especially natural resource conservation, and we also know a lot about the history of Maine's changing landscapes.

Given the rarified status of the white-tailed deer populations in the western mountains, northern forest, and downeast regions of the state and the discussion that has swirled around that issue, many who have not studied the history of deer populations are surprised to learn that deer were not always abundant at all in Maine. In fact, in the pre-colonial period, deer were largely confined to areas around the lower river drainages. The boreal forest ecology that dominated Maine's landscape was home to populations of moose, woodland caribou, bear, and wolves, with populations of beaver and other furbearers in sound numbers.

The work of woodsmen and farmers, who opened up the forests, allowed for the spread of deer to the statewide range described today. In the northern tier of wildlife management districts, current circumstances afford no any-deer permits to prospective hunters who wish to ply their craft in those zones. Today, Maine's deer population tends to be concentrated in the southern and midcoast regions of the state.

But it was not always so. In fact, just over a hundred years ago, there was no open season on whitetailed deer in the midcoast region from roughly Castine to almost Portland. The reason for that, logically, was that there were no deer. There were no deer at least in part because there was no winter cover for them there, either; that whole region was open farm country, for as far as the eye could see. Now, the vast majority of those farms are long gone, and the habitat is wonderful for deer.

"WE ARE THE CONSERVATIONISTS"

Maine has changed, and Maine continues to change. Many of those prospective changes cause great worry for the people who live here, work here, and who make their legacy here. Now we are talking about the ramifications of changes wrought by adding windpower generation to the Maine landscape. The proposal before you considers a vision for the broader interest in Maine conservation; we should be as concerned about the changes that will come if these projects are not approved—what becomes of that vision?

Worrisome trends have been consuming the north woods—literally. While most of the media focus has been on the rapid changes in ownership of Maine's working forest, the practical problem has been a far tighter timeline for investment returns by those entities holding those working forests in ownership. Gone are the days when a working forest was considered a multigenerational investment; today, the bottom line on a corporate ledger demands attention at the end of every fiscal quarter, and investments are expected to produce. That trend has led to more cutting in some places than would have been considered sustainable in the past, and more land is being parceled off for subdivision than what would have been considered viable under past investment models. Allowing these large landowners to diversify their income stream with revenue from wind power projects supports these investment expectations, encourages conservation and good stewardship of forest resources, and promotes public access to these important areas. Cutting off this income option, in the name of protecting the experience of those that use these areas, might lead to decreased public access, increased development, and will be contrary to the interests of all that love and use these natural areas.

Development in and of itself is hardly the prime concern for our members, especially considering the history of the midcoast deer population described above and other similar situations. Also, we have developed strong partnerships with many landowners, who have demonstrated an affirmative interest in supporting the conservation goals of the broader community. Rather, our primary concern is maintenance of habitat, access, and sustainable uses. If landowners are able to maximize the return on their investments, and the goals stated above are not met, we are concerned that those concerned about land conservation and public access will be the losers.

If a landowner is unable to realize a clear and projectible return, while maintaining habitat and access, but instead only by *not* maintaining habitat and access, which path will they be forced to choose?

Far more preferable is the plan offered by First Wind to the greater community, including the host landowners and neighbors. For our folks, some assurance that deer wintering areas, food plots, and investments in local access will remain as cornerstones of the community contribution that First Wind is making answers a great many questions about the future of wildlife in the Bowers Mountain area.

We understand the aesthetic concerns that are the centerpiece of the wind power debate. But in scanning the nighttime horizon anywhere in Maine, red flashing lights warn of cell

phone towers, radio transmitters, and microwave relay stations for as far as the eye can see. Hasn't that decision already been made?

We must act in creative ways to keep rural Maine an attractive investment in the rural economy while continuing to support our sporting heritage and the treasury of wildlife that is the birthright of ourselves and our children. We trust our state agencies to hold this and every development to the highest environmental and social standards; but history has shown First Wind to be a worthy steward of such projects, and we believe that not only will they meet every condition of the permit you are asked to issue, but that they will also provide a premium to the general public at large and the sportsmen of this state in particular in the maturation of this project.

My name is Michael Kerr. I am a year round resident of Lakeville, Maine.

Everything in its place. We have all heard that phrase, probably from our mothers. If you dropped your clothes on the floor your mother would say that doesn't belong there. If you didn't but something away again your mother would say that doesn't belong there. That is how I feel about the Bowers Mountain Kossuth wind project. It does not belong there.

This will over shadow the West Grand chain of lakes. There are very few paces left in this country or the world for that matter that has such pristine wilderness, fisheries and clear clean cold water lakes today.

I have been registered with the state of Maine as a master Maine guide since 1978. In my time guiding I have guided people from all over the world and I have seen the great state of Maine through their eyes. The one thing that echoes through my mind is their comments about the vast wilderness, pristine lakes, abundance of wildlife such as eagles, loons and water fowl. They were surprised that there are still places left like this in our country.

Tourism is Maine's number one industry. For years it was the pulp and paper industry. One things that both sides do agree on is that it will effect the tourism dollar to some degree. Why would we want to chip away at Maine's number one industry when Maine's economy is fragile at best. All one has to do is drive through the Lincoln Lakes Region right now and see. This will be the new state of Maine as we know it. The last thing that we can sell is quality of place and that is gone forever.

Respectfully yours, Michael Kerr

6/27 speaker # 35 Mike DiCenso

TO:LURC 6/27/2011

RE:Bower Mtn Wind Project,First Wind(ChamplainLLC)

Good evening. I would like to thank the commissioners for the opportunity to testify here tonight. I hope you find many reasons to deny the industrial grid scale development proposed for the East Woods, or the Downeast Lakes Watershed as it is properly called. The natural character of the area could be forever diminished and Maine should be protective of the remaining areas where life flows at a slower pace and visitors may reconnect with the way life should be.

When we lost the Rollins/Rocky Dundee area to windsprawl I hoped it wouldn't be as bad as I had feared, that maybe the turbines could fit in the landscape and my worries would prove to be unfounded. Now that construction is over I can see my original fears were correct and the megaliths loom larger in real life than the computer pictures predicted.

I no longer sit on my deck at night because of the 12 blinking lights and the reflections on the water. It is just not the same as watching the natural night skies and the treeline as a loon swims by. There is a distracting quality about blinking lights that commands one's attention. I had a 90 degree view rivaling the North Woods before. Maybe the rare plane flying at night would appreciate the light show. Most of the time energy is being wasted.

The Lincoln area was set up by carefully planting enough pro-wind insiders on the boards and council to pass their agenda, abetted by the court system. It was wrong for the Lincoln Lakes and even more wrong for the Downeast Lakes.

The Downeast Lakes have many 1A and 1B rated lakes as well as a more remote character with state, national, and world significance. Fish at Grand Lake Stream and you will meet folks from around the world. I met two Buddhist monks there once. One was named Probode which means "consciousness". I forget the other's name, but they were both enjoying themselves immensely learning to fly fish.

There are too many turbines now cluttering the landscape between Lincoln and the Canadian border. I see 24 from my home, if I go up on Folsom Pond to my Grandfather's old cabin there are several and there will be dozens where I like to go camping in the West Grand -Junior- Scraggly region if the area is not protected.

The pro-wind crowd says to ignore the turbines if you don't like them. I tried that 2 weeks ago on Upper Pond. It doesn't work. They are too imposing to ignore, like an 800 pound gorilla entering the room. Try and ignore that. We fished for 20 minutes and pulled our boat out of the lake. It just wasn't fun with the intrusive monoliths looming from the hills. It feels strange like someone is watching your every move. We went stream fishing instead. Their other assertion is that if people don't want to

see the turbines they can fish in a cove or point their boat away. Fishing doesn't always work that way.

Most want to troll deeper water which puts one far from shore. What the pro-winders don't understand is that people do not go fishing just to procure fish. It would be more economical and quicker to hit the supermarket if that was the case. Fishing is about getting outdoors, enjoying a quiet paddle, the scenery, watching loons or moose or the occasional eagle swooping down into the water for a fish and then struggling to get airborne again only to drop the fish and have to do it all over again. Fishing is about sharing an activity with kids and instilling an appreciation of nature.

King's Landing and Leonard's Mill are recreations of villages and life as it was long ago, Grand Lake Stream needs no recreation. It is about the same as it always was in the old days. To paddle a locally built wood and canvas canoe or ride in a Grand Laker is still possible. The old lodges are still there. The Guides are readily available for fishing or hunting. A relaxed pace and lack of crowds takes the visitor back in time to an era less complicated. Industrial intrusion is neither needed nor wanted.

Last weekend we camped on West Musquash, in the rain, wind and cold and had a great time. My Grandson Nick caught his first salmon which we released. On the way back to the campsite and warm fire Nick was quiet for a rare few moments, deep in thought. "Grampy, I like it here" he said. "Me too" I affirmed. "Why?" I asked him. "Because it's wild" Nick stated matter of factly. It's obvious to a 5 year old that wild character has value. While Henry David Thoreau may have written a chapter, Nick summed it up in 3 words.

I hope the Bowers project is an easy review for LURC. Let's save some remote areas for our grandkids and someday their kids and grandkids. Please deny the Bowers project. The Downeast Lakes Watershed should be protected forever, as Nick said, "because it's wild".

Thank you.

Mike DiCenso

Lincoln, Maine



6/27 speaker # 34



Most people in Maine realize that Tourism is the largest industry in Maine. It's been that way since railroads opened up in the 1860's and added to the number of wealthy folks who were already coming as passengers off ships from Boston, New York and points south. Henry Ford made it even better when he put his first cars on the road in the 1920's. Being surrounded on three sides by Canada and the Atlantic Ocean made Maine a beautiful, safe, private place for wealthy folks to bring their families and servants to keep them safe during hot summer from both the heat and disease in the big cities. It is still Maine's largest industry based on the fact that the beauty, wildness and wilderness still exists. That's where you find the fishing and hunting lodges, the children's summer camps, camping out areas and trails. In 2009, which was a very bad year here and everywhere for Tourism, Maine's tourism business took in TEN BILLION DOLLARS including \$535 million in tax revenue. It provided 170,000 full time jobs for Maine people, many of them living and working in these small towns near the best spots for fishing, hunting, hiking and just loving Maine. Some of the best of it is right here in this area.

In spite of the fact we are now selling 50% of the electricity we generate here in Maine out of State and that we were promised five or so years ago we could go 30 years before running low, suddenly there is a new emergency requiring immediate action to create electricity using 400 foot high mountain top power generating wind towers. The fight is on. Some are in progress now, many are lined up. Keep in mind that Canada offered to sell us water generated power for 2 cents a kw twenty years ago. We said no. Now they want more (8 to 9 cents/kw). All we have to do is say yes. Of course that would interfere with the profits generated by the construction for a number of people who are pushing all these projects.

The battle will be ongoing. This area is one of the finest, most beautiful and most popular spots in Maine. You have something that is irreplaceable with your trout, salmon, small mouth bass fishing and the Sporting Camps that have been in business for these many years. It's a major draw for the State. The State actually is working on and paying for a small mouth bass project in the area and is very happy with its progress over the last year. It would be a crime to deface this beautiful area of Maine. My family ran a sporting camp on the other side of the State years ago where I grew up. My father and my grandfather came over here for the fishing quite often and they would be really upset if they were still around to hear these plans.

In 15 or 20 years these turbines will be abandoned or falling down. California is a prime example of what the area could look like. They have thousands of abandoned turbines. The technology will have become archaic and obsolete. The jobs will be gone and so will Maine's quality of place. If we preserve Maine's wild and undisturbed landscapes, birds, bats, wild animals, vernal pools, rare plants, a safe place for nesting eagles, the best fishing for trout, salmon, small mouth bass and many other treasures that



we now have will be able to survive. We will be one of the only states in the nation that doesn't spin and blink. This will make Maine an even bigger tourist and sportsmen's destination.

We need to focus on the big picture here. We need to protect Maine's most valuable assets, now and forever. The Brookings Institute Report said this about Maine.

"The slow degradation of Maine's vivid and distinctive quality and place and the reputation it supports may be the greatest threat of all. The State should continue to invest urgently in protecting and enhancing its top notch quality of place for that is its calling card, its brand and its truest source of prosperity"

Nancy D. Gray

Harraseeket Inn

Freeport/ 865-9377

June 27, 2011

1. Introduction of myself:
 - a. Daughter of Robert Hazelwood, former LURC commissioner approx. 12 years; dad's philosophy was to look out for the little guy; discussions of letter of the law vs. intent of the law
 - b. Moved back to Maine 1990 to assist with the family businesses, real estate development (Meddybemps Shores) and cottage rental, Hazelwood's Cottages at Kitchen Cove Point: perhaps some the Commissioners remember my father and some have visited our property: the view is incredible and definitely "as one of the jewels of Maine" should be protected
 - c. Now: Realtor (held to higher standard ie. Code of ethics, as are Commissioners in terms of decision making);
 - d. and Certified Maine Assessor working for the Town of Princeton
2. Licensure requirements :Continuing Education: Real Estate 21 hours every 2-years, Assessing 16 hours every year.
 - a. Maine Revenue Service classes: Wind Power and Tidal Power : look to Eastport for tidal turbines in research and development; University of Maine pilot project for Monhegan Island (yes, they surveyed the fishermen for appropriate siting) also into research and development for wind power
 - b. Maine Revenue Service: TIF Tax Increment Financing: purpose to promote industrial development for the better of the community: we were asked to consult with the Revenue Service to examine whether a potential TIF would benefit the tax payer (i.e. reduction in mil rate = lower tax bill) or whether the TIF would increase the mil rate over a period of time: instructed to examine closely and consult with Revenuers; added revenue to community may be earmarked for special purposes (sidewalks as example in Skowhegan) TIF in the UT????? In essence are you keeping the \$\$\$ value off the books?
3. TIF (tax increment financing)
 - a. My understanding is that it is a gift, an enticement to bring new business to a community (Princeton Airport)
 - b. First Wind meeting held in Grand Lake Stream – I asked one of the speakers about the TIF. He stated "We won't be asking for it" are they getting it anyway? Is this true?
4. Maine DOT: study for direction of growth next 10 – 20 years
 - a. Canadian Coastal Corridor meeting– look to Eastport for increased shipping, tidal power potential, and better roads to service Eastport: see this as coastal growth
5. Baldacci wanted to increase green energy – intent of the law here if you recognize ongoing research and development as meeting his percentages
6. LURC – please don't feel compelled to allow this \$\$\$\$ wasting venture(proven that \$2 million turbines will never generate that much power to pay for themselves)) to fill the need for satisfying a 'bad' law; common sense should prevail

June 28, 2011

To: Lurc Hearings on the Bowers/Kossuth Wind Project

I want to add my voice to those who oppose the Bowers Mountain Project. My family has been on the Downeast Lakes as annual summer campowners for over 50 years. We have lived in the area before the time of the Civil War. Thus, we have seen changes to the area over time. This proposed change, however, is so damaging to the watershed area in terms of disturbing the quiet sense of peace and tranquility, especially with the incredible night skies on the lakes - that it "shocks the senses."

My children make the 5th generation to enjoy one of the affected lakes. We all come away from our time on the lake with a great sense of peace and closeness with nature - these windtowers add nothing to this experience--it will only detract. The mere thought of any of these over 400 feet ugly noise and light emitters overshadowing the trees and lakes totally changes the lake experience. I can't imagine what it does to the wildlife in the area with the noise and the light together. The night sky beauty, the landscape views and the lake views will all be affected by this industrial project placed in the middle of a designated scenic area. There is absolutely nothing scenic in any way with these towers.

It is indeed self-serving to ask that the fishermen, or kayakers and canoe fans to just orient themselves into another direction! This comes across as arrogant and along the line of "Just let them eat cake"! My camp and my dock can not be "re-oriented" to avoid the continual light and blinking that will come from these metallic "trees" - how absurd a thought that is! I just retired after 30 years of work to be able to spend time on the lake - envisioning a place of peace and quiet free from the distractions of urban and industrial clutter.

We are all well aware that this industry is heavily supported by federal funds and that the permanent jobs that will be left once the project is finished will be few. This is not a permanent way to "jumpstart" the local economy. This area is unique, can not be duplicated, and is a sample of what the "old Maine" feel has been on the Downeast Lakes--my guess is that none of the corporate executives have, or would want to have, such metal monstrosities in their backyards at their homes or their summer homes! Neither do we!

Patricia McKay Verbeeck
Lakeville Campowner

Richard and Donna Washburn

9 Round Robin Loop, PO Box 130

Fremont, NH 03044

Also of

141 Pine Cone Trail

Lakeville Maine, Duck Lake

Re, a view to not allow Wind Machines on Bowers Mountain,

To Members of LURC and interested parties,

I first would like to say how I appreciate the opportunity to be a voice in your decision in a matter that will, in my opinion, have an effect on Maine until the next ice age.

My name is Richard Washburn. I was born in Margaret Chase Smith's house of Skowhegan Maine, once known as the big house. My first Washburn's to Maine took place shortly before 1800 to Hebron, and they went on to migrate to Bangor and Brewer. Recent ancestry derives from Princeton and Bar Harbor. I would have lived all my life in Maine if not for my father having to find employment outside of Maine at what was his profession, the shoe business. His profession took him to the United Shoe in Massachusetts.

For as far back as I can remember family trips and visits to Maine became a standard way of life. After college and marriage, I always knew at some point in life I would be finding my way back to Maine. In 1997, my wife and I decided to begin this venture. We spent weekends driving east to west, north to south to find a peaceful location to call our piece of Maine. This search took much into consideration as the decision where to purchase soon included a plan to build and retire to where our decision took us. Based upon the natural resource, scenic value and central location to Princeton, Bangor and Bar Harbor, we chose to purchase property in 2001 within the Grand Lake Chain of Lakes on Duck Lake in Lakeville.

Our dream was becoming reality as you, LURC granted a building permit to build an unattached garage and a log home. At this point we have constructed the garage and now our dream is on hold. My property is now for sale and has been since December. I never in my life considered the state on Maine allowing 400-500 foot wind machines strung along the mountain range across the lake from us with their red lights blinking all night. And only God knows what other effects they will introduce to the Grand Lake Stream Water Shed District. And here I am urging you to make a decision to stop the ruination of the area and say no to the destruction of this unique Water Shed District and allow me to remove my property from the for sale listings. You see, if the Bowers plan is allowed by you, what would be next, the wind machine use of Gatchell Mountain, a mere 1 mile from my current location and directly across the lake?

Does the plan First Wind has before you support job growth? I say no. These jobs associated with this plan are temporary. If the state of Maine was interested in job creation, the state would be attracting businesses that create year round employment. Does the plan First Wind have before you support green electricity for Maine, I say no. Where will the green electricity go? Where does storage of wind electricity get stored? And what oil power plants will be turned off for when the wind blows? Did the First Wind Plan or the State of Maine, in the plan before you take into consideration the effects to the natural beauty that these wind machines will remove from Maine's natural resources? Again I say no. If the State of Maine and First Wind considered this, the

compromise would be putting these wind machine towers along Route I 95 all the way to Houlton.

I ask and urge you to make a decision not to allow the destruction of Maine's mountains and hills and the draw they have to the uniqueness of the Grand Lake Stream District. This is not about a decision of majority vs. minority for or against. Your decision in my view is about common sense. The wind machines **just do not fit** into the Grand Lake Stream District. They will remove the reasons why people live, visit, vacation and recreate in this area. I am here as an example of this. Please make a decision allowing me to remove my retirement property from the for sale listing. Thank you for allowing me a voice in your decision.

6/28 speaker #7

ROBERT F. & SANDRA L. CLARK
PO Box 196
Grand Lake Stream, ME 04637

E-Mail: hemlocksbob@gmail.com
Phone: 207-796-2644

My name is Bob Clark and I live in Grand Lake Stream. Before we retired, my wife and I lived all over the United States and traveled around the world due to the international content of my career. We've always been outdoor sports enthusiasts and have hiked, hunted and fished everywhere we traveled. Of all the places we visited, we found the woods and lakes surrounding Grand Lake Stream to be the most beautiful, pristine and unspoiled.

Two years before we retired, we bought property on Big Lake because we had decided this is where we wanted to spend the rest of our lives. The day after we retired, we drove here from Kansas, and over the next few months we cleared a spot for our home and a small guest cottage. Every summer we have friends who come to visit with us from Kansas, Utah, Louisiana, Oklahoma, New York and Florida. They come here for the same natural beauty that attracted us, and they boat and fish the many unspoiled lakes and streams in our area. Several have returned in winter months to snowmobile, cross country ski and ice fish.

Nothing that I've read or heard regarding the benefits of wind power begins to justify in my mind the damage the Bowers Mountain Project will inflict on The Downeast Lakes area. The negative effect on lifestyle of people like my family and our visitors who chose to recreate here would be only a minor part of the tragedy. This is a precious and unique area that has attracted sportsmen for many generations. I believe the real tragedies if the project goes forward would be the degradation of the area's natural beauty and the attendant loss of tradition and local economy when sportsmen from out of state elect to chose other locations that still resemble wilderness.

Bowers Mountain Wind Project

We have been Maine residents for nearly 40 years. We purchased our Lakeville property four years ago. Our intent was to own a piece of property in one of the most beautiful lake districts of Maine, still natural and beautiful where we could enjoy time in our later years. We searched for a suitable property for well over a year. We settled on the Lakeville lot for all of its natural values and year round accessibility. It is a unique place for those reasons. As it turns out we purchased at the peak in the property market. The shell of our structure was erected last August just before the expedited area was expanded for the Bowers Wind Project. In our minds that decision enabled First Wind to make the entire project feasible and without it this project may not have moved forward. Since that LURC decision we have made our own decision to not spend any unnecessary money on local contractors preferring to finish whatever we are capable of ourselves and cut back on the scope of our project. This was not our intent, but faced with the very real possibility that our property will be further devalued if the Bowers Mountain wind project is approved we feel we have to maintain as much equity as we can with sweat. Our house is small, super insulated and with the sun shining in February our inside temperatures reached 74 degrees and maintained the heat well through the night. Our boiler didn't come on until later in the morning. We have made a concerted effort to make our property as energy efficient as we can afford. We are trying to do our part.

We did not buy our property to look at a wind farm. Anyone that views before and after pictures would certainly prefer the before picture unquestionably and would place a different value on the two settings accordingly. The four hundred foot towers will dominate the skyline to the northeast and the night time flashing red lights will offend any viewer. We now can look out over Penobscot Bay and clearly see the three wind towers of the Fox Island project over seven miles away. Their red flashing lights do indeed stand out in the night sky. The prospect of 27 red flashing lights higher above us and closer is not a pleasant thought.

We are not or ever will be against alternative energy in principle, but the way that this nation and state is going about it seems "business as usual". Corporations, their lobbyists and politicians are directing the show. We do have to develop a better way but to proceed in an atmosphere of fear and panic doesn't produce good long term results. A few of the people will have jobs and make some money. Most will not. Many others will lose money. The incentive programs offered to the consumer to do their energy part seems proportionately quite small and rather subdued compared to the incentives for corporations. We wonder why a bigger emphasis isn't placed on home and business energy improvement as well as energy production. With wide spread net metering programs, solar hot water systems, efficient wood systems and conservation programs hundreds of local contractors would sell, install, maintain and upgrade the systems, putting people to work, paying taxes and improving the economy and quality of life, but more importantly and straight to the heart of the energy problem, people would take a vested interest in their consumption and production of their own energy. With the current attitude people are waiting for someone else to solve a problem for them and hand them a

product in unlimited amounts at the expense of the forest, wildlife, ecosystem and view. Smaller community used wind turbines are viable for the community that wants them. This is not a community project for our own electricity consumption.

The benefits of land based, utility scale wind generation in Maine is certainly questionable in its biggest picture. If wind industry development is the way Maine wants to expand its already exported product then it needs to be sited where people will not risk lost value in their properties or quality of their surroundings. If Maine wants people to be attracted to live, work and recreate in an area as beautiful and natural as is the downeast lakes watershed for the long term, a wind farm will not bring them. Place industrial scale wind farms away from people and their properties, such as offshore to lessen the impact on the land and all inhabitants. Offshore is where the most wind is and people are not. We think there are more people beginning to understand this and agree. We realize this is a ways off but it surely should be worth the wait to not destroy the values of our living space.

Maine needs to preserve its natural settings especially one as unique as this site and large scale land based wind projects do not accomplish this. If the Bowers Mountain project is allowed to proceed we will be looking back on it as a very sad and wasteful day and not just by the two of us.

Sincerely,
Steven and Diane Neil
Camden and Lakeville

Made in Maine Wind Energy

From the age of 10 I have enjoyed playing on upper cold stream ponds commonly know as the little narrows.

This winter and spring, we have begun to see wind turbines being erected in the distance for the Rollins Wind Project.

Despite the negative chatter recently about how the turbines will adversely affect the view from homes just like mine. I have to say that I've seen the turbines, and the two just don't add up.

Seeing wind turbines from my home represents seeing clean energy being produced here in Maine, helping our state and region get off our addiction to foreign oil.

The turbines represent hardworking Mainers being put to work to construct the structures and more Mainers working on an ongoing basis when the facility is producing energy.



The turbines represent wind energy as a Maine export – just like paper, blueberries and lobster. Renewable wind energy is another product that we can stamp "Made in Maine" and take pride in manufacturing here within our borders and taking advantage of a growing industry. A Maine made product that will not be farmed out to another third world county. The revenues and the jobs stay in Maine.

I believe that modern technology can coexist with our natural resources. It's already happening in Maine – and I look forward to seeing it continue.

Steve Perry
30 Shore Drive
Lincoln



MAINE 
AUDUBON

20 Gilsland Farm Rd., Falmouth, ME 04105
(207)781-2330, www.maineaudubon.org

June 27, 2011

Maine Land Use Regulation Commission
22 State House Station
Augusta, Me 04333-0022

To Whom It May Concern:

Thank you for the opportunity to speak on behalf of Maine Audubon and our 15,000 members and friends in support of the Bowers Wind Project, Development Permit 4889, proposed by Champlin Wind, LLC, for construction in Carroll Plantation and Kossuth Township. I am Ted Koffman, executive director of Maine Audubon, and former House chair of the Legislature's Natural Resources Committee. Maine Audubon works to conserve wildlife and wildlife habitat by engaging people of all ages in education, conservation, and action.

Maine Audubon supports the Bowers project. We spoke before LURC in favor of incorporating the whole Bowers ridge into the expedited development area so the entire project could be reviewed at one time. We also supported both phases of the nearby Stetson project because they did not present undue adverse impacts to wildlife and wildlife habitat.

In assessing potential environmental impacts of wind development, Maine Audubon's decision to support or oppose any given project is guided by five key wildlife considerations. These include impacts to unique natural communities; large blocks of undeveloped habitat; significant wildlife habitat; species of conservation concern (endangered, threatened, special concern or otherwise rare); and, bird and bat migration.

Our staff has carefully reviewed the Bowers application, and has concluded there are no significant wildlife issues, aside from potential impacts to bats that are of concern. We know very little about how many bats are in Maine, what their demographics are, or how additive mortality might impact populations. However, there is no evidence to suggest that Maine's bat mortality at wind developments, however low it may appear, won't translate into serious population effects. In fact, with steep declines in bat populations throughout other states in the northeast, and with pending state and federal endangered listing for several *Myotis* species, Maine may play a crucial role in providing quality roosting, breeding and migratory habitat. We believe that reducing mortality risk for bats in Maine is critical, especially with the discovery of white-nosed syndrome right here in Maine.

Studies have shown that raising the cut-in speed to 5.0 m/sec from one-half hour before sunset to one half-hour after sunrise can reduce bat mortality more than 60%. We support DIF&Ws request for curtailment at this site, and urge the developer to agree and to consider further studies of curtailment. The design and protocols for such a study should include expert third party assistance, along with DIF&W oversight. Post-construction studies could demonstrate that different curtailment conditions or elimination of curtailment provisions is appropriate, but given the rapidly changing status of bats in the northeast, we feel this careful approach is warranted at this time.

Maine Audubon has been involved with wind resource policy and development since the early 1990s, when the first industrial wind farm was proposed in the Boundary Mountains. Since that time, we have participated in several working groups and task forces, including the Governor's Task Force on Wind Power Development in Maine that was convened in 2007.

Throughout our almost 20-year involvement with this emerging industry, we have consistently advocated for rightly-sited wind power development where no undue adverse impacts to wildlife and wildlife habitat result from the construction of roads, pads, and transmission corridors, or from the operation of the turbines themselves.

Given the considerations above, we support the Bowers Wind Project as another step toward attaining the State's wind power goals.

Ted Koffman
Executive Director

There are several reasons Maine Audubon supports continued development of Maine's wind resource. While the nation has made progress reducing toxic air pollution, serious impacts of fossil fuel emissions on human health and the environment at large continue, including mercury deposition absorbed by our fish and those that consume them, and sulfur dioxide causing acid rain.

Climate change is the ultimate environmental, public health, economic, and political threat. Its impacts are already apparent and mounting. Modeling produced by the University of Maine show that Maine, even under the most optimistic projections, will experience significant shifts in the composition of plants, animals, insects and fish populations here by the end of this century. Although Maine produces a small fraction of the nation's greenhouse gas output, we too have some responsibility to reduce the levels of greenhouse gases we produce here in Maine and that are produced in other states that supply Maine with electricity.

Last but not least are the consequences to national security from an overdependence on foreign fuel supplies. Maine is especially vulnerable as the State with the oldest housing stock and the State most dependent of fossil fuels for heating.

It is also our position that reducing reliance on fossil fuels is critical to any long-term energy strategy. Consequently, in addition to energy conservation, retrofitting of existing building stock, and adopting strong energy conservation building standards, Maine Audubon support's wind power as part of a balanced energy portfolio.

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My name is Tici Conant, I live in Raymond, ME and we have a camp on Bottle Lake Rd. in Lakeville.

Visiting our friends camp on Bottle Lake, we have been enjoying the West Grand Lake Region for 15 yrs. Over the years, we grew to love it so much that we bought a place of our own 4 years ago. We make the journey just about every month, year round, and hate when it's time to leave. There is no better, or more peaceful place to enjoy the lakes and hills than right here. We're seldom at our camp because we'd rather be kayaking, fishing, or boating and swimming on the many islands in the many lakes. During the fall and winter we hunt, ski, snowshoe and ice fish. One of ^{our} favorite things we do is overnight camping trips in our kayaks or boat to one of the many primitive campsites on the lakes islands.

there are many lakes and hills in the Raymond area, which we do enjoy, but they don't come close to the beauty and serenity found in these lakes with

their undeveloped shorelines and eagles soaring above.

As you know, over the last few years, several wind projects have been established in this area. Now, on our drive from Lincoln to Lakeville, we can see wind turbines from every town along the way. I ask you, when is enough, enough? I say NOW! The greed, demonstrated by the sheer number of turbines seen when driving down the Rt. 6 Corridor, has got to stop. It is

- ruining our precious and beautiful ridgelines
- taking away our spectacular night sky
- destroying the animal habitats
- and will discourage tourism which many people in this area depend on.

Many nights I have laid awake thinking about the pending Bowers Wind Project, because I fear more than anything that our beloved views will soon be marred.

These wind projects may bring short term jobs and tax breaks, but the irreversible damage to many things is long term.

I ask each one of you, no- I beg you, to consider our pleas and put an end to this destruction right here, and now, by saying NO to the Bowers Wind Project.

Thank you.

Testimony before the Land Use Regulation Commission
June 28, 2011 at Lincoln, Maine
Concerning Bowers Mountain Wind Farm proposal, Development Permit 4889

Diane Smith-Halkett
TIF Administrator, Washington County UT TIF Grant & Loan Program

Good evening, my name is Diane Smith-Halkett and I am the administrator of the Washington County Unorganized Territories Grant and Loan Program in the TIF District created for the Stetson I and II wind farms. I work for the private nonprofit, Sunrise County Economic Council, or SCEC, which has the contract to administer this TIF program for the County.

SCEC works toward prosperity for *all* residents of Washington County. We take a grassroots approach to economic and community development, and seek common ground, working across traditional political, municipal, and economic boundaries. The decisions that we all make about how to treat Bowers Mountain, the West Grand watershed, and other special places in Maine are important to matters of economic development today, but also to the legacy we leave for our children. Washington County may currently be in economic poverty but it has no poverty of spirit and no poverty of beauty. We are rich in both. So everything we do must balance short-term and long-term gain to keep banking our incredible assets and investing in our hardworking, resourceful people.

The tax increment financing district created by the County Commissioners and First Wind for Stetson I and II returned \$458,613 to Washington County coffers for 2009, and \$550,834 for 2010. This TIF District and Credit Enhancement Agreement are written to last 30 years, with the option of continuing after that period. With these funds the Commissioners have created an effective grant and loan program to spur economic development in our 34 Washington County UTs.

To date the program has funded 13 projects totaling \$351,810, which have leveraged \$3.4 million in economic activity. Sole proprietorships, LLC's, and nonprofits have all benefited from this program. The projects encompass a wide variety of activities, including farming, food research, food product marketing, recycling, communications, tidal power research, nature-based tourism, and improved public access to hunting and fishing areas. Projects in the pipeline include increased broadband access for the northern UTs, more food production, and more recreational and tourism development. You may notice that many of these projects focus on "green" technology and increased self-sufficiency. It was not the program's intention to focus on these topics, but these are currently the kinds of projects that are crying out to be funded.

Allow me to tell you a bit more about a few of the projects funded so far as a result of wind power development in Washington County. The TIF Fund granted \$50,000 to Cobscook Bay Seafood/Maine Fresh of Trescott to deploy regional marketing strategies for their seafood pies. A share of the profits from these pies will help fund educational programs at the nearby Cobscook Community Learning Center, which this program is also assisting. The TIF Fund granted \$49,500 to the Downeast Lakes Land Trust to improve road access in the Wabassus Lake Tract in Township 43, helping to preserve a vital route from the Airline to Grand Lake Stream. The TIF Fund granted a total of \$33,400 to a commercial organic farm in Edmunds to help them greatly increase their organic chicken production and ensure their farm operates into the ninth generation. And the TIF Program has granted \$25,000 to a sole proprietorship in Trescott to help fund a trucking company that plans to haul recyclables out of Washington County. These recyclables will be separated from the waste stream due to another grant from the TIF to Marion Transfer Station.

As I hope you can see, the development of the Stetson I and II projects has had a direct, positive economic impact on Washington County past the construction phase, and will continue to do so for many years. It is our hope and belief that alternative energy development in the county will continue to be a net positive economic driver and an important part of our future.

To show the historic importance of tourism in Maine, the following is a quote made by Hon. W. P. Frye, a U. S. Senator from Maine, taken from the 1902 "Report of the Maine Commissioners of Inland Fisheries and Game": "In all times of business depressions and distress, financial panics and consequent unemployment so seriously affecting the country, the State of Maine has suffered much less than any other state in the American Union, mostly, if not entirely, due to the large amount of money left with us by the fisherman, the summer tourist and the fall hunter, the seeker after change, rest and recreation."

"The summer tourist represents an industry which has become so familiar that it is difficult for us to appreciate either their novelty or importance. But if these tourists should stay at home, we should not only miss them grievously in our landscape, but scores of trades would be paralyzed by their disappearance.

"Millions of dollars' worth of summer resort property would go to waste and many a town would lose its principal source of support. All the complicated economics of our day are involved in the tourists vacation idlings. They have become an integral and vital part of our social and commercial organization."

THOSE WORDS ARE AS TRUE TODAY AS THEY WERE THEN. IN 2009, TOURISM GENERATED FOR THE STATE OF MAINE TEN BILLION DOLLARS IN GOODS AND SERVICES, 530 MILLION IN TAXES AND PROVIDED 170,000 FULL TIME JOBS, AND 2009 WAS A

BAD YEAR. Can we afford to jeopardize Maine's biggest economic engine with this proliferation of industrial wind turbines upon our landscapes?

Do the tangible benefits of all of Maine's proposed industrial wind projects combined even come close to tourism's figures? Has the cumulative visual impact of these projects on twelve thousand square miles of Maine's scenic viewshed been evaluated from an economic perspective? And if not, why not?

The tangible benefits of tourism will last forever only if we protect Maine's iconic viewsheds from inappropriate development. Industrial wind provides no benefits for the majority of Mainers, and even less for Maine's mountains, waters and wildlife. Worse, it could very well destroy the tourism infrastructure rural natives count on for their very survival.

**MAINE'S UNSPOILED LANDSCAPES ARE PRICELESS NATURAL TREASURES WORTHY OF OUR RESPONSIBLE STEWARDSHIP.
THANK YOU.**

Respectfully,
Penelope R. Gray
Registered Maine Master Guide
Harraseeket Inn
162 Main Street
Freeport, Maine 04032
nadianichols@aol.com

did not testify verbally

To: Fred Todd fred.todd@maine.gov; Maine Land Use Regulation Commission, 22 State House Station, Augusta, Maine 04333-0022. Tel 207-287-8786.

From: Michael and Robin Corbin, corbin@fairpoint.net; 1355 Main Road, Carroll Plantation, Maine, 04487. Tel 207-738-4354.

Re: Public Testimony supporting The Bowers Mountain Wind Project in Carroll Plantation.

Date: June 20, 2011

Dear Maine Land Use Regulation Commission,

It is our privilege and pleasure to testify in support of the Bowers Mountain Wind Project in Carroll Plantation.

We are residents of Carroll Plantation, having lived on route 6 in Carroll for the past 31 years. We raised our 3 children here. I served as 2nd Assessor for 15 years, moderated 15 to 20 town meetings, and my wife served as tax collector for 5 years. In 1985 I testified on behalf of Carroll Plantation against a Nuclear Waste Dump, the proposed "Bottle Lake Complex". In 1995 my wife and I were very involved in the planning and carrying out of Carroll Plantation's Sesquicentennial. We have remained involved and committed in the business of Carroll Plantation throughout our time here. Our family hunts, fishes, hikes, cross country skis, snowmobiles and four wheels this lovely remote area we call home.

More recently my wife and I have shown our support at the local town meeting for the Bowers Wind Project. I served on the Tangible Benefits Review Committee, attended all of the meetings, and publicly supported the committee's proposal to recommend to the Plantation to enter into a Community Benefits Agreement with First Wind. This culminated in a special town meeting where the residents voted to approve the committee's recommendation and enter into an agreement with First Wind to develop a community benefits package.

Not only do we support this wind project for the obvious financial benefits to the community, but also because we are fundamentally in support of forms of alternative and green energy. We also support further research and development into these areas with the belief that in the future they will become even more efficient.

We live nearby the Stetson 1 and 2 projects, have traveled under them several times, have not found their sight or sound offensive, rather find them quite impressive. The road building and maintenance, as well as the landscaping, have been very beneficial environmentally. They are quite the tourist attraction to family and friends visiting.

COMMENTS ABOUT WIND POWER

FROM: STETSON MINE - FIRST SETTLER'S LODGE

P.O. Box 247, 341 US RT. 1 WESTON, ME, 04424

(MILLION DOLLAR VIEW HIGHWAY)

MY WIFE SUSAN & I PURCHASED THE FIRST SETTLER'S LODGE IN WESTON, ME IN EARLY DEC. 2010. WE BOUGHT THE LODGE WELL AFTER THE STETSON RIDGE WIND FARM HAD BEEN BUILT.

THE WIND FARM SITS ON A RIDGE APPROXIMATELY 7 MILES WSW OF THE LODGE AND PROVIDES A GREAT POINT OF INTEREST FOR OUR GUESTS AS THEY VIEW THE "MILLION DOLLAR VIEW". THE BALANCE OF THE VIEW INCLUDES MOUNT KATHADIN 53 MILES TO THE WNW AND EAST GRAND LAKE TO THE ENE.

WE HAVE A WELL BALANCED CLIENTEL INCLUDING, TOURISTS, BUSINESS PEOPLE, SPORTSMEN & PEOPLE ENJOYING FOOD AT OUR RESTAURANT. OF OUR GUESTS AT LEAST 95% HAVE A FAVORABLE OPINION OF THE VIEW OF THE WIND FARM FROM OUR LODGE. SOME SAY THEY ARE "COOL" OR "BEAUTIFUL" OTHERS ARE MORE NEUTRAL IN NATURE. VERY FEW ARE NEGATIVE IN NATURE.

FIRST WIND HAS BEEN A GOOD NEIGHBOR TO THE COMMUNITY. WE CONTINUE TO ENJOY LODGE VISITORS FROM THE WIND FARM. THESE INCLUDE PEOPLE FROM: FIRST WIND, G.E., VENDORS TO FIRST WIND, & POTENTIAL VENDORS TO FIRST WIND. FIRST WIND HAS ALSO USED US AS A CATERER FOR LUNCHES AT THE WIND FARM.

OTHER LOCAL BUSINESS'S ALSO CONTINUE TO SEE BUSINESS FROM THE WIND FARM, HARDWARE STORE, GAS STATIONS, ETC.

OVER →

SUSAN AND I HAVE NOTHING BUT FAVORABLE OPINION ABOUT THE VIEW OF THE WIND FARM, THE PEOPLE ASSOCIATED WITH THE WIND FARM AND THE BOOST TO THE LOCAL ECONOMY THAT THE WIND FARM AFFORDS.

HOPEFULLY THESE COMMENTS HELP IN YOUR DECISIONS ON GRANTING A PERMIT TO FIRST WIND TO BUILD THE BOWERS WIND FARM.

SINCERLY

STEPHEN G. MINE

A handwritten signature in black ink, appearing to be 'S. Mine', written in a cursive style.

To the Committee: The Downeast Lakes Region is a spectacular natural area, with minimal observable human development, and is cherished by those of us who spend time or live here for that reason.

Many of us have built camps or homes under the watchful eye of LURC, carefully staying 100 feet from the shore, selectively removing vegetation within that area, and even using building materials that don't clash with the natural background. We can't enhance our beaches or add boat launching facilities. If we want a path to the shore, it must meander, and can't be too wide.

All of these conditions, which can be damned irritating, are put forth with the purpose of protecting the vistas for everyone. Where these LURCwide restrictions are in place, I believe the cumulative effect is positive, if sometimes irritating to adhere to.

Thousands of people have submitted to these regulations, and millions of dollars have been spent to acquire easements on miles of shorefront in this region, in order to protect the visual integrity of this splendid system of lakes in the Maine Woods.

Now we have an abomination of industrial vandalism being visited upon us in the false name of green energy. The vistas and wilderness areas that have been guarded by LURC for decades will be destroyed forever if approval is forthcoming for this project.

My grandchildren caught their first fish in Junior Lake last summer. Will this be the final summer of peace and tranquility here? Will the suggestion of a corporate mouthpiece that I face in a different direction when I fish, if I find windmill vandalized ridgelines offensive, be endorsed by LURC?

Please find this development inappropriate for this location. Take into consideration all of the stated objectives that LURC has promoted and enforced for years, and find that the environmental degradation, and visual disaster that this industrial project brings to the region is clearly inappropriate and unacceptable.

Sincerely,



6-27-11

Gary A. Chard

433 Back Brooks Rd.

Monroe, Maine 04951