

# **REPORT ON THE MAINE WIND ENERGY ACT AFTER FOUR YEARS OF EXPERIENCE WITH RECOMMENDATIONS FOR CHANGES TO ACHIEVE A MORE BALANCED PUBLIC POLICY**

**Prepared by**

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## **Introduction**

Since enactment of the Wind Energy Act in 2008 (the “Act”), much has been learned about the impacts of grid scale wind power developments on both the natural and human environments. We have also been able to measure the actual contributions of wind power to the electric needs of the region; to better understand whether the wind power goals of the Act are realistic and desirable in light of their impacts; and to observe a changing market for the fuels which fire traditional electric generating plants. As with any new legislation that boldly ventures into what is largely unlegislated territory, experience naturally leads to adjustments designed to respond to the enhanced knowledge base. This is especially so in the case of the Act; drafted by a special task force that worked largely without public participation and enacted in the closing days of the legislative session with less public attention than most legislation of comparable importance.

Many of the legislative changes proposed here echo the recommendations found in the *Maine Wind Energy Development Assessment: Report & Recommendations – 2012* that was prepared by the Governor’s Office of Energy Independence and Security pursuant to direction of the Maine Legislature. Given that it was delivered to the Legislature late in the 2012 session, no action was taken on the report. It will be referred to in the following as the “*Wind Energy Assessment*” or “WEA.”

## **The Maine Experience**

Since 2008, 11 grid scale wind power projects have come before the primary State permitting agencies, the Department of Environmental Protection and the Land Use Regulation Commission.<sup>1</sup> Of these, 9 have been approved, 1 has been withdrawn and only 1, Bowers Mountain, has been rejected.<sup>2</sup> Maine leads New England with 7 wind power projects in operation that represent 190 turbines capable of producing 376 MW. There are 3 other projects that have been approved but have not yet come on line.

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<sup>1</sup> Pursuant to Public Laws 2012, Ch 682, the Maine DEP will henceforth be the permitting agency for all grid scale wind power projects in both the organized and unorganized parts of the State.

<sup>2</sup> The Maine Land Use Regulation Commission rejected the Bowers Mountain project in 2011. No appeal of the denial was taken by the developer. The developer has returned to Maine DEP with an application for a smaller project.

The overwhelming rate of approval for wind power projects does not mean that they have been without opposition. Many of the projects have encountered substantial resistance ranging from well established regional/state conservation organizations; to newer “grass roots” organizations with a wind power focus; to groups of individuals who live near the area where the proposed project will be located. These groups have engaged wind power developers in the administrative law process that we use in licensing and, in some cases, have engaged in the judicial appeal process.

The past four years of permitting experience and the “give and take” that the administrative law process is built upon have brought out a number of realities that the Act does not now adequately address. We now know that:

- Almost all wind power projects are proposed for ridgelines. Some are in mountainous regions such as western Maine and some are in lower land areas but on ridges that rise above the landscape. The reason for this is that the wind resource tends to be better on ridges. The consequence of this is that the wind turbines are prominent on the landscape and often in areas that are valued by local residents and visitors for their natural beauty.
- The height of grid scale wind turbines (we include support towers, nacelles and blades in “turbines”), more than 40 stories, and the expanse of many projects, covering miles of ridgelines, mean that the projects are visible to the naked eye from many miles away; more than 35 miles. They can be a highly significant feature of the landscape as far as 15 miles away. It is widely anticipated that that height of wind turbines will increase to 50 stories, i.e., more than 500 feet, as developers attempt to take advantage of stronger/steadier winds at higher elevations.
- All wind power projects permitted in Maine have red flashing lights on many of the turbines as required by the Federal Aviation Administration (FAA). These have significant effects on the “night sky.”
- The Act does not address the issue of cumulative visual impacts of wind power projects on the viewer. It is now evident that when more than one project can be seen from a scenic resource there is a cumulative effect that cannot be accounted for by considering each project in isolation.
- Some wind power projects have significant effects on scenic resources that are valued by local residents but which have not been designated by the State or federal government as having special significance.
- The Act, when defining scenic resources of statewide significance, relies in part upon lake studies that were undertaken by the State more than 20 years ago; were not exhaustive; and were never intended to be used for this type of regulatory purpose.
- Wind power projects produce turbine noise that can be very disturbing for nearby residents. The Act leaves the noise issue entirely to the permitting agency rather than establishing minimum setbacks from residences.
- The Act is silent on the issue of funding decommissioning costs. Some developers have represented to permitting agencies that the scrap value of the turbines will be adequate to fund decommissioning. More recently, permitting agencies have begun to require the establishment of decommissioning funds.
- The Land Use Regulation Commission regularly held adjudicatory hearings under the Maine Administrative Procedures Act when it was considering permit applications for

grid scale wind power projects. The Maine DEP has never held an adjudicatory hearing on a wind power project, no matter how controversial.

- The Act does not allow the permitting agency to consider economic harms to the local economy that can result from wind power projects. There have been a number of projects where opponents have alleged that the adverse effects of the project on tourism and sporting guests would harm the local economy.
- Wind turbines have caught fire in other parts of the country and abroad and have caused fires to spread on the ground beneath the turbines. Nowhere in the Act or in the applicable permitting standards is there a requirement that the developer provide for a fire fighting plan and access to the turbines for fire fighting equipment.
- The on-shore wind goals of the Act are unrealistic. It is clear that the goals for 2015 will not be achieved.

Many of the issues raised by this body of experience over the past five years were not anticipated by the Act. It is prudent and in the public interest to revisit certain assumptions made five years ago and to amend the Act to address these issues. The Maine Appalachian Trail Club (MATC) supports the changes to the Act described in this Memorandum and contained in the Appendix. MATC has not proposed amendments that address all of the issues noted above but, rather, has focused on the issues that are related to the visual impacts of grid scale developments because these are the most important and relevant to MATC's mission of protecting the Appalachian Trail and the experience that it offers.

## **Proposed Amendments to the Wind Energy Act**

### *1. Protection of the visual resources and the viewer's experience.*

Under the Act, developers of expedited wind power projects are *de facto* required to provide a visual impact assessment (VIA) if the project is within 3 miles of a scenic resource of state or national significance. (35-A M.R.S. § 3452(3),(4)) The permitting authority *may* require a VIA if there is a potential for significant adverse effects on scenic resources of state or national significance up to 8 miles from the project. When we get beyond 8 miles from the project any effects on scenic resources must be considered "insignificant." Further, the statute provides that a finding that the wind turbines are a highly visible feature on the landscape is not by itself sufficient for the permitting authority to conclude that the project will have an unreasonable adverse impact on scenic character and uses associated with scenic character.

Informed by experience rather than photo simulations and academic studies, we now know that 400 foot tall wind turbines (soon to be up to 500 foot tall) located on ridge tops and in mountain environments can be prominent features of the landscape at much greater distances than 3 miles. The legislation proposed here contains these elements:

- A presumption that any wind power project located within 8 miles of a scenic resource of state or national significance must submit a VIA.
- An option for the permitting authority to require a VIA if the project is more than 8 miles but within 15 miles of a scenic resource of state or national significance and there is

substantial evidence that a VIA is needed to determine the effects of the project on such resources.

- A rebuttable presumption that a wind power project within 15 miles of Acadia National Park, the Appalachian Trail, a federally designated Wilderness Area, the Allagash Wilderness Waterway or Baxter State Park will have an unreasonable adverse effect on the scenic resource.<sup>3</sup>
- If the project is more than 15 miles from a scenic resource of state or national significance and the permitting authority believes that a VIA is necessary because of special circumstances of the scenic resource or the project site, the authority may notify the developer and give the developer an opportunity to challenge the permitting authority's requirement for a VIA by providing evidence that a VIA is unnecessary.<sup>4</sup>

## 2. *Accounting for cumulative visual impacts of development.*

The 280 plus miles of the Appalachian Trail (AT) in Maine is renowned for its “wilderness” character.<sup>5</sup> If wind projects continue to be developed in the view shed of the AT at the current pace, the AT hiker’s experience of Maine will be a walk through a wind farm. Today’s north bound hiker crosses through Grafton Notch State Park and heads up over the Baldpate Mountains where he/she is greeted at the summit of East Baldpate with a clear view of the Record Hill project in Roxbury, about 18 miles distant. This project will continue to be seen from open summits east of the Baldpates for miles of hiking along the AT. When the hiker gets to western Maine’s high peaks area, beginning with Saddleback, he/she begins to see the Kibby Wind project and will likely be able to see the recently approved but not yet built project near Mount Blue State Park. The Kibby project is intermittently visible for several days of hiking from Saddleback Mountain through the Bigelow Range, its closest point to the AT being approximately 24 miles from The Horns in the Bigelow Preserve. Other wind projects, built and planned, are visible farther up the AT. At least one project is now visible from Katahdin, the northerly end of the AT.

This experience on the AT is a good example of “cumulative visual impacts” discussed in the *Report of OEIS Assessment of Cumulative Visual Impacts from Wind Energy Development* (March 2012), which is part of the *Wind Energy Assessment*. The authors describe this as:

A dispersion of turbines throughout the landscape may lead to the “everywhere” problem (everywhere I go in this region I’ll continuously see wind turbines).<sup>6</sup>

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<sup>3</sup> The *Wind Energy Assessment*, Recommendation 10 advocates for removing from the Expedited Permitting Area “regions and view sheds that are most critical to the state’s recreational and tourism economy” that would be “unacceptably degraded” by wind power projects within 15 miles unless the wind power project is not visible from the project. Here, we have called out the “jewels” among our scenic resources.

<sup>4</sup> Moving the current 3 mile limit to 8 miles and the current 8 mile limit 15 miles, with an option of going beyond 15 miles, is the recommendation made by the *Wind Energy Assessment*, Recommendation 18.

<sup>5</sup> The AT has been designated by Congress as a National Scenic Trail and is part of the National Park system. It is also the only trail specifically recognized by the Maine Legislature as a “primitive trail” under the Maine Trails System. 12 M.R.S. § 1892. “Primitive trails” are those “providing for the appreciation of natural and primitive areas and for the conservation of significant scenic, historic, natural or cultural qualities of the areas through which the trails pass and offering primarily the experience of solitude and self-reliance in natural or near-natural surroundings.”

<sup>6</sup> *Report*, p. 4.

The authors go on to note that landscape architects and scenic experts identify this type of cumulative scenic impact as follows:

Sequential: More than one wind project would be seen as the viewer travels along a linear route (e.g., hiking trail or scenic highway) or planer surface (e.g., a large water body).<sup>7</sup>

The authors assert that time and resource constraints precluded them from developing recommended regulations to address cumulative visual impacts. They also acknowledged that there did not seem to be a consensus among those who commented to them on this issue whether regulations should focus upon the “everywhere” (or sequential) problem or the “too many here” (concentrations of turbines creating an unacceptable impact on the viewer’s experience) problem.

If Maine is going to protect its “quality of place”<sup>8</sup> from the cumulative visual impacts of numerous wind power projects then it must step back from the “silo” permitting approach that it has been using under the Act and account for the cumulative visual impacts of numerous projects. If we fail to assess the cumulative visual impacts of wind power development on our mountain environments and continue to license projects one-by-one then we will at some point come to realize that we have fundamentally changed the landscape of inland Maine without being aware that we were doing that.

The legislation proposed here requires the permitting agency to consider both types of cumulative impacts: “everywhere” and “too many here.” It anticipates that the agency will develop regulations that will guide applicants in how to account for cumulative visual impacts and that will guide decision makers in how to evaluate cumulative visual impacts.

Measuring and evaluating cumulative impacts is not a novel concept in environmental permitting. The regulations developed under Maine’s Site Location of Development Law have for many years directed the Maine DEP to consider:

*The potential primary, secondary, and cumulative impacts of the development on the character, quality, and uses of the land, air, and water on the development site and on the area likely to be affected by the proposed development.”<sup>9</sup>*

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<sup>7</sup> *Id.*

<sup>8</sup> See The Brookings Institution and GrowSmart Maine, *Charting Maine’s Future* (2006) and *Charting Maine’s Future: Making Headway* (2012). There is an economic development component to protecting Maine’s natural beauty.

<sup>9</sup> MDEP Reg. Ch. 372. At the federal level we note that projects requiring National Environmental Policy Act (NEPA) review must include in their environmental impact statement a discussion/analysis of the project’s “cumulative impact.” That term is defined in the regulations of the Council on Environmental Quality as follows:

*Cumulative impact* is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Because of the special treatment of the visual impacts of wind power projects found in the Act, the Site Location Law regulation cannot today be applied to those projects. Legislation is needed to require consideration of cumulative visual impacts.

3. *Protection of resources of local significance.*

If a municipality has identified a local natural or cultural feature or place of historic significance and has taken some official action to recognize and protect that resource, such as including it in the municipality's comprehensive plan as a resource to be protected from incompatible development, that resource should be acknowledged in the Act and given the same consideration as resources of state or national significance. The proposed legislation accomplishes this by adding these resources to the definition of "Scenic resources of state or national significance" found in 35-A M.R.S. § 3451(9).

Protecting scenic resources of local significance is not a novel concept in Maine law. The Maine DEP rules (Ch. 315) under the Natural Resources Protection Act offer protection for local scenic resources as well as state and federal scenic resources.

4. *Updating of lakes reports and protection of great ponds with outstanding fisheries and wildlife values that are also the location of commercial sporting camps.*

In defining scenic resources of state or national significance, the Act restricts its protection of great ponds to ponds in the organized area that were identified in a 1989 State Planning Office report as having outstanding or significant scenic quality and to ponds in the unorganized area that were identified in a 1987 LURC report as having outstanding or significant scenic quality. While use of these 23 and 25 year old reports is probably all the drafters of the Act had to work with, limiting the protections of the Act to these great ponds does not go far enough, i.e., the reports are under inclusive. When one reads the reports it becomes clear that they were not the result of an exhaustive study of the scenic values of the lakes studied and that the reports were not intended to be used in the way that the Act uses them. The Maine Wildlands Lake Assessment (June 1, 1987), p.3 states:

*It should be pointed out that these ratings are in fact minimum ratings. It is understood that complete information concerning the resource values for many lakes is not presently available and, if it were, many of these lakes might receive a higher value class rating. (emphasis in original)*

The Legislature should direct the appropriate state agency to update and supplement with new data the two lakes reports with a special emphasis on scenic values. While that work is ongoing, we should enact a "gap filler" that will allow interested persons to present evidence to the Maine DEP during the permitting process which demonstrates that lakes impacted by the wind power project have the qualities that qualify them for protection.

We know from permitting experiences under the Act that Maine guides and sporting camp operators view the impacts of wind power projects on their businesses very negatively. Their “clients” come to remote lakes to fish and hunt in a “wilderness” environment. Often, the sporting camps on these lakes are themselves an attraction because they are historic, unique to Maine and symbolic of a by-gone era. There are great ponds in the two referenced studies that are identified as having outstanding fisheries and wildlife values and which support sporting camps but which are not identified in the studies as having outstanding or significant scenic values and are, therefore, not protected under the Act. These lakes deserve protection and the proposed legislation affords them protection by including within the definition of “scenic resources of state or national significance” great ponds identified in the studies as having outstanding fisheries and wildlife resources and on which there is at least one commercial sporting camp established before 2008, the year when the Act became effective.<sup>10</sup>

5. *Require funded decommissioning plans as a condition of approval in all wind power projects.*

The proposed legislation requires the permitting authority (Maine DEP), to make fully funded decommissioning plans a condition of approval and to develop rules which set out the requirements for such plans. The plans should include performance guarantees such as bonds and letters of credit that will cover the cost of decommissioning during the construction and early operational years of the project and a segregated decommissioning account that is funded through operational revenues in the later years of the project. Developers should be required to provide the permitting authority with professionally prepared estimates of the costs for decommissioning and a periodic accounting of the decommissioning account.

## **Conclusion**

It is sound public policy to review complex legislation such as the Maine Wind Energy Act in light of gained experience. The proposals for change made here by the Maine Appalachian Trail Club are not radical. Some are grounded in the State’s *Wind Energy Assessment* and some simply import into wind power project permitting the same review standards that are applicable to other large scale developments in Maine. All of the proposals made here grow out of experience.

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<sup>10</sup> The *Wind Energy Assessment* recommends study of protecting sporting camps. Recommendation 15.