



**APPALACHIAN
MOUNTAIN CLUB**
YOUR CONNECTION TO THE OUTDOORS

March 23, 2017

Senator Thomas Saviello, Chair
Representative Ralph Tucker, Chair
Joint Standing Committee on Environment and Natural Resources

Testimony of David Publicover, Senior Staff Scientist, Appalachian Mountain Club in support of LD 901 - An Act To Amend the Laws Governing the Determination of a Wind Energy Development's Effect on the Scenic Character of Maine's Special Places

Senator Saviello, Representative Tucker, and members of the Committee:

The Appalachian Mountain Club presents this testimony in strong support of LD 901.

The Appalachian Mountain Club is the nation's oldest conservation and recreation organization. Our 100,000 members, volunteers and supporters include over 5,200 members of our Maine chapter as well as many others who visit the state for outdoor recreational activities. We also own 74,000 acres of forest land in Piscataquis County that is managed for multiple uses including biological conservation, sustainable forestry, backcountry recreation and environmental education.

For nearly 20 years we have been actively engaged in issues related to wind power siting in Maine. We have a strong recognition of the damage that fossil-fuel based energy generation can have on the resources we care about, and believe that there is a place for properly sited commercial wind power development in the state. Dr. Publicover served as an alternate member of the Governor's Task Force on Wind Power Development, and we supported the resultant 2008 Wind Energy Act.

Like many significant changes to the law, the 2008 law was not perfect. It has been amended multiple times to correct deficiencies. Among the changes have been a requirement for consideration of cumulative impacts, stronger protection for Bicknell's thrush, and the process by which residents of the unorganized territories could have their township removed from the expedited permitting area (which 40 townships and plantations took advantage of).

LD 901 corrects another deficiency in the law. Currently the law limits consideration of scenic impacts of wind development to a distance of 8 miles from a designated scenic resource. LD 901 would increase this distance to 15 miles for a limited set of the state's most outstanding mountain viewpoints – Baxter State Park, Acadia National Park, open summits along the Appalachian Trail, Mount Abraham and the Caribou-Speckled Wilderness Area in the White Mountain National Forest.

Main Headquarters: 5 Joy Street • Boston, MA 02108-1490 • 617-523-0636 • outdoors.org

Regional Headquarters: Pinkham Notch Visitor Center • 361 Route 16 • Gorham, NH 03581-0298 • 603 466-2721

Additional Offices: Bretton Woods, NH • Greenville, ME • Portland, ME • New York, NY • Bethlehem, PA

The need for this law is driven by two factors. First is the state's greater experience with the scenic impact of wind power facilities. At the time of the 2008 law there was one operating wind farm in the state (Mars Hill). There are now thirteen, and we have a much better understanding of their visibility. The Bingham project is prominently visible from the summit of Moxie Bald Mountain along the Appalachian Trail, spanning a visual arc of 50 degrees at a distance of eight to fifteen miles. However, this impact was never considered during the permitting process. On a clear day the Kibby project is easily seen from the summit of Bigelow Mountain at a distance of 17 to 22 miles, though at this distance it is not obtrusive.

The second factor is a significant increase in the size of wind turbines (Figure 1). The Mars Hill turbines were 389 feet tall, and until 2011 all operating projects were between 389 and 412 feet tall. When we testified on a similar bill two years ago the tallest turbines in the state were 476 feet tall (the Bull Hill project). Now Maine hosts the tallest turbines in North America at 574 feet (the Hancock project). Rotor diameters have also increased, from about 250 feet at Mars Hill to over 380 feet at Hancock. Since 2013 constructed or proposed projects¹ have ranged from 492 to 610 feet tall, and turbines up to 750' tall are in operation in other parts of the world².

Given our greater experience and the ever-increasing size of wind turbines, the idea that wind turbines should be considered "legally invisible" beyond eight miles is no longer justifiable.

The potential for significant but legally unrecognized scenic impacts created by this limit is particularly acute for Maine's open mountain summits. Visitors from around the world are drawn by their expansive 360° views of undeveloped landscapes. Retaining the current eight-mile limit threatens the credibility of the permitting process and could allow the degradation of some of the most spectacular natural views in the northeastern United States.

One of the underlying objectives guiding the work of the Governor's Task Force³ was "*To protect Maine's quality of place and natural resources*". Few places evoke Maine's quality of place like the iconic names of Baxter, Acadia, the Mahoosucs, Bigelow and the Appalachian Trail. These are the crown jewels of Maine's public lands system. They deserve a higher level of protection than provided under current law. LD 901 ensures that wind power development within 15 miles of these most special places will be considered by the Department of Environmental Protection during permitting review.

The current 8-mile limit for visual impact assessment was based primarily on the conclusions of the 2007 National Academy of Sciences report *Environmental Impacts of Wind-Energy Projects*⁴, which stated (page 101), "The most significant impacts are likely to occur within 3 miles of the project, with impacts possible from sensitive viewing areas up to 8 miles of the project."

The NAS report was based on evaluation of wind turbines the size of those at Mars Hill – less than 400 feet tall. However, even then the NAS report recognized that visual impacts could extend to greater distances, as it also stated in the same paragraph:

¹ As used here "proposed projects" includes projects that have submitted an application to LURC or DEP (including those that were withdrawn) as well as those that have submitted an application for hazard determination to the Federal Aviation Administration.

² See <http://www.windpowerengineering.com/featured/business-news-projects/nordex-installs-worlds-tallest-wind-turbine/>.

³ *Report of the Governor's Task Force on Wind Power Development*, page 9.

⁴ National Academy of Sciences. 2007. *Environmental Impacts of Wind-energy Projects*. National Academy of Sciences National Research Council, Washington, DC.

“At 10 miles away the project is less likely to result in significant impacts unless it is located in or can be seen from a particularly sensitive site or the project is in an area that might be considered a regional focal point. Thus, a 10-mile radius provides a good basis for analysis including viewshed mapping and field assessment for current turbines. In some landscapes a 15-mile radius may be preferred if highly sensitive viewpoints occur at these distances, the overall scale of the project warrants a broader assessment, or if more than one project is proposed in an area.” [italics added.]

The scenic resources listed in LD 901 are clearly “regional focal points” that contain “highly sensitive viewpoints”. The significant increase in turbine size since the NAS report was released only strengthens its conclusion that 15 miles is a more appropriate distance for visual impact assessment for these exceptional scenic resources. It is also necessary to ensure the proper consideration of the cumulative impact of multiple wind power projects within the viewshed of these resources.

The need for stronger protection for the state’s most important scenic resources was also recognized by the Maine Office of Energy Independence and Security in its 2012 *Maine Wind Energy Development Assessment: Report and Recommendations*⁵, which included the following recommendations (pages 6 and 7):

- *Amend the wind law to identify “those regions and view sheds that are most critical to the state’s recreational and tourism economy and would be unacceptably degraded by any significant level of wind power development” and “remove any area within fifteen miles of them from the Expedited Permitting Area (EPA)” unless the wind project is not visible from them.*
- *Amend the wind law to require scenic impact evaluations to eight miles, with a fifteen mile standard option and provisions made for review to greater distances.*

LD 901 stops well short of fully implementing these recommendations, and is narrowly focused on providing greater protection for the state’s most significant mountain viewpoints.

We urge you to support this legislation and thank you for the opportunity to present this testimony. If you have questions about this testimony please feel free to contact me.

Sincerely,



David Publicover
Senior Staff Scientist
Appalachian Mountain Club
Gorham, NH
603-466-8140
dpublicover@outdoors.org

⁵ The Executive Summary and Recommendation Outline from the OEIS report are attached to this testimony.