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CHAPTER

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January 14, 2014

Chairman John D. Keenan  
Joint Committee on Telecommunications, Utilities and Energy  
State House, Room 473B  
Boston, MA 02133

Chairman Benjamin B. Downing  
Joint Committee on Telecommunications, Utilities and Energy  
State House, Room 413F  
Boston, MA 02133

**Re: Testimony regarding H.2980, *An Act relative to comprehensive siting reform for land based wind projects***

Dear Chairman Keenan, Chairman Downing, and Honorable Members of the Committee:

Thank you for the opportunity to offer our comments on H.2980, a bill to streamline the process of permitting the construction of utility scale wind turbines.

The Sierra Club maintains its longstanding and continued support for the development of both land-based and off-shore wind. We view wind as an essential renewable and clean energy resource to help wean Massachusetts from fossil fuels, reduce carbon pollution, localize the cost of energy, and avoid the worst impacts of climate change, while also powering the state's transition to a thriving low-carbon economy.

As clearly evidenced in every wind generation project, our state and local laws require multiple and sequential reviews and approvals by different administrative and regulating bodies. Streamlining would not diminish the authority of any such body, but simply consolidate and speed the process and make it easier and less costly for both the applicant and such bodies. This legislation would help expedite the siting process, set clear and uniform requirements, and allow the sensible regulation of this technology.

We applaud the Committee's efforts to seek objective data in order to permit the state to move forward with development of properly sited wind turbines. There are, as noted, a wealth of objective data from existing studies that accomplish this goal and the Mass Department of Environmental Protection's Wind Turbine Noise Technical Advisory Group is nearing the end of its effort to refine the state's regulatory process and establish an existing fair regulatory process that addresses concerns that have been raised. We urge the Committee to reject attempts to fund yet more studies, given the existing data, and delay further wind project siting.

The climate change crisis makes the transition to a low-carbon economy the defining challenge of our age. We need to embrace and promote energy efficiency and renewable energy resources and accelerate investing in new technologies to reduce even faster our reliance on coal, natural gas, oil, other fossil fuels, and industrial-scale biomass. This transition to new technologies for a renewable energy powered industry is not only a source of new jobs for Massachusetts but also the opportunity to develop a technological

competitive advantage on a global scale. And it is a way to keep our energy dollars in the state rather than exporting them to buy and import even more fossil fuels.

With that said, the Sierra Club supports wind developments, or any renewable energy developments for that matter, that are appropriately sited and permitted. In 2012, the Department of Environmental Protection convened an independent panel of professional experts to examine the existing scientific literature on a variety of impacts which were being attributed to wind turbines, whether accurately or not. The study concluded that these impacts, such as shadow flicker, noise, vibration, ice throw, and general annoyance, can be adequately prevented, minimized and/or mitigated through the application of best practices within the siting and permitting process.<sup>1</sup> To this end, we oppose any effort that would unnecessarily slow the wind development in the state.

We note that potential wind turbine “impacts,” rather than being ignored, are being proactively addressed so that Massachusetts can quickly and responsibly realize the potential for clean energy... The Massachusetts Sierra Club’s views wind energy as a means of new job creation, economic growth, achieving global competitive advantage, and reducing climate destabilizing carbon dioxide and other greenhouse gases. Many of our municipalities are already seeing the benefits of reduced electricity bills and reduced pollution from this abundant natural resource.<sup>2</sup>

The previous decade’s progress toward better health, a cleaner environment and self-sufficiency is proof that Massachusetts has a bright future as a leader of the clean energy revolution, and our success will rely heavily on our ability to harness the wind’s power. The Sierra Club has long been committed to promoting positive solutions to reduce adverse environmental impacts of human activity. Failing to enact a wind turbine streamlining bill would perpetuate unneeded and costly obstacles facing any land-based wind project, thereby ignoring local sentiments and conditions, while prolonging Commonwealth residents’ dependence on fossil fuels for electricity generation and perpetuating real, adverse health impacts of fossil fuel emissions.

In light of these realities, we respectfully request that the Committee report H.2980 favorably.

Respectfully,



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## **ADDENDUM: Wind Facts**

A wind farm is a group of wind turbines (1 MW or larger) on a single site. The electrical power installed at a wind farm is the sum of the power capacity of all the wind turbines on the site. This is also called utility scale. On an average site, a 2 MW wind turbine can make enough electricity to power up to about 600 households and displace 4.4 tons of CO<sub>2</sub> in a year. A wind turbine produces 80-120 times more energy than it consumes. In other words, it takes a wind turbine 2-3 months to produce the amount of energy that goes into its manufacture, installation, operation, and decommissioning after its 20-year lifetime.

**Wind energy is the fastest growing energy technology in the world.** Wind turbine installations may rise 20% this year worldwide and are projected to double by 2015. Wind power generation in the United States has increased 13 times from what it was in 2000. Our country is working toward the goal of supplying 20% of electricity nationwide by 2030, the target set under the administration of President George W. Bush.

**Clean energy investments create jobs in Massachusetts.** Investments in a clean-energy economy will generate major employment benefits for the Commonwealth as well as the U.S....16.7 jobs for every \$1 million in spending. Spending on fossil fuels, by contrast, generates 5.3 jobs per \$1 million in spending. The wind industry in the U.S. is served by over 400 American plants and has created about 85,000 jobs. The U.S. Department of Energy has found that over 500,000 jobs would be created from getting 20% of America's electricity from wind energy.

**Renewable Portfolio Standards (RPS) are law in Massachusetts.** Driven by state renewable energy targets, as many as 14 states have installed over 1,000 MW of wind, and 37 states now have at least some utility-scale wind power. Iowa, which passed one of the country's earliest renewable generation laws, got an estimated 20% of its electricity from wind in 2010. Wind power has reached 25% of the electrical generation in Texas. We do not have any utility wind farms online and generate less than 10 MW of community level (less than 1 MW) wind power.

**Americans want wind.** A Harris poll in October 2010 found 87 percent of Americans want more wind energy, including 84 percent of Republicans. Every time a referendum has been held on renewable energy, voters say they want more wind development, not less.

**Price of wind power is dropping.** The latest data on wind turbine costs shows that as wind turbine costs have fallen drastically over the last several years, wind energy has become increasingly affordable.

**Wind energy electricity can be cheaper than fossil fuel energy.** Although the cost of wind energy electricity is still higher than that of coal or gas in Massachusetts in some states it is already cheaper than fossil fuel electricity. The more we develop and use wind energy the cheaper it gets. Since 2005, the price has already dropped. Gas, oil and natural gas have always been, and still are heavily subsidized by the federal government and these supplies are limited and vulnerable.

**True cost of fossil fuels...** The extraction of our domestic oil, gas and coal is fraught with environmental and health problems

**Americans are getting sick and dying from the burning and mining of fossil fuels -** according to the American Lung Association- at the rate of 64,000 deaths/year. Wind energy is completely clean and carbon dioxide free (after installation).

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<sup>1</sup> Wind Turbine Health Impact Study: Report of Independent Expert Panel, Prepared for MA DEP, MA DPH January 2012, [www.mass.gov/eea/docs/dep/energy/wind/turbine-impact-study.pdf](http://www.mass.gov/eea/docs/dep/energy/wind/turbine-impact-study.pdf)

<sup>2</sup> Lombardo, T, A Town Saves Money with Renewable Energy, Engineering.Com, 8/11/2013