



## Massachusetts Association of Conservation Commissions

*protecting wetlands, open space and biological diversity through education and advocacy*

February 20, 2014

Mark Marini, Secretary  
Department of Public Utilities  
One South Station  
Boston, Massachusetts, 02110

Re: DPU 13-165; Best Practices for the Siting of Land-Based Wind Energy Facilities

Dear Mr. Marini:

The Massachusetts Association of Conservation Commissions (MACC) appreciates the opportunity to comment on questions presented in DPU 13-165, the Investigation by the Department of Public Utilities (DPU) on its own Motion into Best Practices for the Siting of Land-Based Wind Energy Facilities.

MACC, a membership-based non-profit corporation, is the professional association of Massachusetts conservation commissions. We represent more than 2,100 conservation commissioners throughout Massachusetts who are responsible for protecting the natural resources of their communities under the Conservation Act (G.L. c.40, § 8c) and for administering and enforcing the Wetlands Protection Act (G.L. c.131, § 40) and municipal wetlands laws and regulations. We protect wetlands, open space, and biological diversity across Massachusetts by supporting conservation commissions through education and advocacy. We advocate for strong science-based laws, regulations, and policies that function well and that can be implemented locally. We have been doing that work since 1961.

### General Comments

MACC recognizes the grave dangers posed by human-induced climate change, and that wind power may represent part of an effective mix of options to achieve significant net reductions in carbon emissions. We support the use of wind energy facilities when appropriately sited and operated. Poorly sited and operated wind energy facilities, however, would have adverse impacts on the environment and are unacceptable. They might destroy or harm wetlands, thereby reducing the wetland's ecological value, fragment significant natural habitats, disrupt wildlife behavior, and increase morbidity and mortality rates for rare species. They may adversely affect local residents and create opposition to wind energy facilities.

We believe guidance for the siting of wind energy facilities should express a clear mandate for locations where the facilities will have no or minimal adverse impact on the natural environment and public health. Guidance should require environmental and health impact assessments to be completed for each proposed project, including a comparison to alternative sites where there is adequate wind but that were not chosen. Locations should be rejected as locations for wind power facilities if use of other sites would be result in lesser impacts.

Our comments focus on making sure DPU wind siting guidance will appropriately take into account the legal and policy mandates to protect wetlands and open space. The Massachusetts Wetlands Protection

Act recognizes that wetlands perform many vital ecological functions (interests) that require protection under the law. Those interests are: protection of public and private water supply; protection of groundwater supply; flood control; storm damage prevention; prevention of pollution; protection of land containing shellfish; protection of fisheries; and protection of wildlife habitat. G.L. c.131, § 40. See also 310 CMR 10.01(2). DPU guidance must be consistent with the goals of the Wetlands Protection Act.

Wetlands and other open space also perform vital functions for climate mitigation and adaptation, including by absorbing carbon and storm water flows. Wetlands and open space are part of the solution to climate change because they sequester carbon and provide ecosystem resilience. An inappropriately sited wind power facility may have a significant impact in relatively pristine locations such as ridges and mountains in central and western Massachusetts where the landscape is in an intact natural condition. The 2011 Massachusetts Climate Change Adaptation Report, mandated by the 2008 Global Warming Solutions Act, identified preserving, protecting, and restoring natural habitats and the hydrology of watersheds as a strategy that benefits natural resources and habitat and may play a critical role in protecting and increasing resilience of key infrastructure sectors, human health, and the local economy.<sup>1</sup> DPU guidance must be consistent with the key strategies and objectives of that report.

Generally, activities proposed to be undertaken in areas subject to protection under the Wetlands Protection Act,<sup>2</sup> including adjacent buffer zones,<sup>3</sup> require advance notice to and advance approval by the municipal conservation commission before the activities may be undertaken. 310 CMR 10.02.<sup>4</sup> We think it essential that any wind siting guidance reflect those requirements and discourage wind facilities from being sited in or adjacent to wetland resource areas where they might negatively affect the interests

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<sup>1</sup> The Report reads at page 34 (references omitted):

Healthy and functional ecosystems support several important sectors of the economy and provide valuable social benefits. Having resilient ecosystems can buffer these ecosystem services against the significant impacts that are occurring or are projected to occur due to climate change.

Intact forested watersheds, wetlands, and rivers support clean drinking water and help water suppliers avoid the need for billions of dollars of water purification infrastructure and operations. Protecting functional floodplains and other wetlands prevents the need for additional flood control infrastructure and flood damage repairs. Coastal wetlands act as important natural buffers that prevent storm and flood damage to expensive inland infrastructure. Estuaries are the breeding ground and nurseries for many species of marine organisms that play important ecological and economic roles.

An added benefit of healthy and properly functioning ecosystems is improved resistance to invasive plants, animals, insects, and diseases. As a result, fewer resources are needed for control of these ecologically and economically costly threats. Forests and other naturally vegetated landscapes sequester atmospheric carbon, equivalent to approximately 10 percent of Massachusetts' carbon emissions. Conservation of wetland soils with significant carbon stores (i.e., peat) also prevents the release of additional carbon to the atmosphere.

It is estimated that each acre of forest in Massachusetts provides \$1,500 annually in economic value from forest products, water filtration, flood control, and tourism. For the state's 3.1 million acres of forest, this equals \$4.6 billion annually.

<sup>2</sup> Areas subject to protection are: any bank, freshwater wetland, coastal wetland, beach, dune, flat, marsh, or swamp, bordering any ocean, estuary, creek, river, stream, pond, or lake. Also, land under any of the water bodies listed above, land subject to tidal action, land subject to coastal storm flowage, land subject to flooding, and riverfront area.

<sup>3</sup> Buffer zones are 100 feet of an area subject to protection under the Wetlands Protection Act.

<sup>4</sup> MassDEP has determined that activities within areas subject to protection under the Wetlands Protection Act are so likely to result in the removing, filling, dredging or altering of those areas that preconstruction review is always justified and filing of a Notice of Intent with the local conservation commission should be required for such activities. 310 CMR 10.02.

subject to protection under the Wetlands Protection Act. It would be unfortunate for the environment and engender innumerable time-consuming and costly siting conflicts were DPU's siting guidelines not to acknowledge the required process and the wetlands interests to be protected in any proposed siting.

Further, more than one-half of the municipalities in Massachusetts, as authorized by law, have adopted local wetlands bylaws or ordinances that are more protective than state law. Projects proposed for protected wetland resource areas in one of those jurisdictions must comply with local requirements in addition to state wetlands requirements. DPU siting guidance should so inform project proponents.

We are concerned that DPU do this correctly. Developers may choose wetland resource areas or rural natural areas containing high quality forests for wind power facilities, not because those locations are where such facilities can be constructed and operated with the least environmental impact, but because those areas are available for a lower price than other locations. Uplands in rural parts of the state are available at considerably lower prices than land in more developed parts of the state. The protections of wetland interests authorized by the Wetlands Protection Act, and the difficulty of building in wetlands consistent with law, has served to keep the market price of many wetlands low, also making them financially attractive options for developers of energy generating projects. We have seen this already with some proposed renewable energy projects.

DPU guidance should clearly state that comparative costs of acquisition of sites for wind energy is not an acceptable reason to choose a wetland resource area, rare species habitat, or BioMap Core area for a wind energy facility. Further, in any siting analysis the true cost of building in a wetland resource area or rare species habitat must account for adequate mitigation, as well as any reduced functioning of the wetland or forest and loss of habitat.

In addition, the guidelines must be harmonized with other important and related policies and goals such as conservation of large tracts of forest for their carbon sequestration and climate change resiliency functions, and intact wetlands for the same reasons. The location of sites with high energy potential may coincide with many important high quality natural habitats including mountains and ridges. Those areas contain pristine cold water fishery streams and other undisturbed wetlands. Guidelines should take into account the importance of intact high quality examples of natural communities and associated landscapes, and should recommend the use of BioMap2 in site planning and alternatives analysis.

In determining the impacts of a wind power facility, consideration must be given to the sites impacted directly by the turbines, associated cleared areas, and access roads. Impacts of commercial scale projects may extend beyond the footprint of the turbines. Access roads and stream crossings can fragment habitats. Stream crossings of pristine headwater streams must be designed to the state stream crossing standards, including for intermittent streams. State wetlands regulations on buffer zones are inadequate to protect sensitive, high quality wetlands and streams in remote areas. Guidelines for wind siting should be science based and protect those natural resources by recommending at least 100 feet of undisturbed forested buffers along streams and wetlands in headwater areas and protect the full 200 feet of Riverfront Area along perennial streams and rivers. Storm water should be managed using filtration and infiltration through vegetation and soils using Low Impact Development (LID) techniques. Catch basins and other structures that may entrap small animals such as salamanders, turtles, and frogs should not be utilized in rural forested settings; instead, vegetated swales and other open LID techniques should be used.

On the coast, siting near beaches where coastal water birds nest must be addressed. There is no regulatory mechanism to review or restrict such siting. If a turbine is located in uplands close to but not in coastal wetlands, there is no review under Wetlands Protection Act and often not under the Massachusetts Endangered Species Act (MESA). Further, siting of projects within Priority Habitat for rare species under MESA should be strongly discouraged.

#### Comments in Response to Specific Questions

In addition to the above comments, we offer the following responses to some of the specific questions set forth in DPU 13-165:

##### Question 1

We think guidance should notify project proponents of the requirement to file a Notice of Intent with the local conservation commission when required by the Wetlands Protection Act or local law. The guidance should mention that impacts on wetland interests that might be present with a wind energy facility might include: noise; shadow flicker (and sometimes turbine glint); land clearing, soil erosion, and habitat impacts; avian mortality; impacts to other rare and endangered species of flora and fauna; adverse visual impacts; wetlands, ground/surface water quality, and stormwater/drainage impacts; electromagnetic field levels; solid and hazardous waste; and construction impacts. Those potential impacts must be presented to the conservation commission and related to the interests protected by the Wetlands Protection Act.

Impacts on wetlands caused by building structures in wetland resource areas, such as filling, dredging, or altering land, soil erosion, and impacts on ground/surface water quality and water flow and drainage, should be well known to project proponents and conservation commissions. Other potential impacts, such as the impacts of noise, shadow flicker, turbine blade and ice throw, and electromagnetic fields levels on the flora and fauna of a wetland, as well as avian mortality, will likely require additional study and may differ from one location to another. DPU may wish to notify project proponents that they may be required to pay fees to a conservation commission to fund a commission consultant to review the project. Some commissions currently have and exercise the authority to require project proponents to pay for consultants for commissions on specific projects; others do not.

##### Question 2

Siting guidance should be different for a wind energy facility proposed for a wetland resource area subject to protection under the Wetlands Protection Act and for large tracts of forested land that are important natural habitats. In particular, as mentioned above, costs of land acquisition should not drive wind power facilities to wetlands or other important open spaces. Impacts on wetland functions and protected species must be taken into consideration. The scale of the project is not as important as the project's impact on protected species, wetlands, and protected wetland interests. Our response to question 1, above, is also germane here.

##### Question 6

A well sited wind generating facility that does not adversely affect the interests protected by the Wetlands Protection Act and that includes appropriate mitigation can receive an Order of Conditions from a Conservation Commission, be constructed, and become part of the state's renewable energy

portfolio. We think DPU guidance should help to assure that only well sited projects, whose impacts have been fully explored and vetted and mitigated as necessary, are proposed consistent with the Wetlands Protection Act. Wetlands should not be chosen to site wind energy facilities based on the costs of land acquisition or preparation but only when a facility can be constructed and operated there with no or minimal impact on the wetland environment.

#### Question 9

Mass DEP might wish to convene a stakeholder group to look at policy options related to proposals to site wind power facilities in wetland resource areas. We think the impacts of large wind generating facilities on the interests protected by the Wetlands Protection Act are not well understood and require review by DEP through a stakeholder process and perhaps outside consultants.

The MEPA regulations should be amended to require an Environmental Impact Report (EIR) for wind power facilities beyond residential and small commercial scale, regardless of generating capacity, in certain locations such as wetland resource areas, habitats protected by MESA, and environmental justice communities. The current MEPA threshold, based on the generating capacity of the facility, was written during the days of fossil fuel generation and does not match up well with considerations of the impacts of wind energy facilities. Alternatively, the Secretary could indicate in a policy that he will require EIRs under his discretionary authority until the impacts of wind generating facilities are better known. State financial incentives supporting wind projects should trigger MEPA review for all wind power projects beyond residential and small commercial scale regardless of generating capacity.

The working group developing the guidelines should be expanded to include additional expertise, for example by adding the Department of Fish and Game as well as regional planning agencies from areas where wind power facilities are most likely to be sited.

Thank you for the opportunity to comment. Please feel free to contact me to follow up.

Sincerely,



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