

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 13-165

October 31, 2013

Investigation by the Department of Public Utilities on its own Motion into Best Practices for the Siting of Land-Based Wind Energy Facilities

VOTE AND ORDER OPENING INVESTIGATION

I. INTRODUCTION

On June 27, 2013, the Massachusetts Executive Office of Energy and Environmental Affairs (“EEA”) announced its Community Wind Outreach Initiative (“Initiative”). The Initiative established an inter-agency community wind working group (“wind working group”) charged with providing support and guidance for municipalities, developers, and other stakeholders in Massachusetts that may be hosting, reviewing, or considering land-based wind energy facilities (“WEFs”). The wind working group includes representatives from EEA, the Department of Energy Resources (“DOER”), the Massachusetts Clean Energy Center (“MassCEC”), the Department of Environmental Protection (“MassDEP”), and the Department of Public Utilities (“Department”). The Initiative assigned to the Department the tasks of: (1) researching wind siting practices around the country and internationally; (2) identifying best practices used in other jurisdictions; and (3) relying on sound scientific, technical, and policy information in developing guidance for siting land-based WEFs in Massachusetts (“wind siting guidance” or “guidance”). The Department issues this Notice of Investigation (“NOI”) to solicit public input and develop wind siting guidance.

A. Legislative and Policy Background

Over the past several years, the Commonwealth has seen a rapid increase in the number of installed utility-scale (i.e., over 100 kilowatt) wind turbines and cumulative capacity – from three turbines and three megawatts (“MW”) in 2007 to dozens of turbines and more than 100 MW now installed and operating across the state.¹ Grid-connected wind turbines in

¹ See “Patrick Administration Launches Community Wind Energy Initiative,” Patrick Administration Press Release, June 27, 2013.

Massachusetts range from small-scale models intended for residential use to a 2.5 MW turbine located in Gloucester.² The installed projects vary from single turbine installations located at homes, schools, municipal facilities, farms, and businesses to Hoosac Wind, the largest wind farm in Massachusetts, comprised of 19 turbines with a total capacity of 28.5 MW.

The successful development of land-based wind energy in Massachusetts is an important policy objective reflected in various executive and legislative goals and requirements. In 2008, the Green Communities Act increased the amount of energy that retail electricity suppliers must purchase from new renewable energy sources from four percent of sales in 2009 to 15 percent by 2020. See Acts of 2008, c. 169, § 32.

In 2009, Governor Patrick announced a goal of installing 2,000 MW of wind capacity by 2020, with land-based wind accounting for approximately 25 percent of this goal. By displacing electricity generated by fossil fuels, the use of wind turbines on this scale will reduce greenhouse gas emissions by 3.1 million tons, equivalent to roughly twelve percent of current power plant emissions.³ Such emissions reductions would also help further the requirements of the Global Warming Solutions Act and the related 2020 Clean Energy and Climate Plan, which together require a 25 percent reduction of greenhouse gas emissions by 2020 relative to a 1990 baseline and an 80 percent reduction from 1990 levels by 2050. In addition, widespread deployment of wind resources in New England is predicted to mitigate volatile fossil-fuel based energy prices,

² See “Three Wind Turbines to Rise in Gloucester,” October 20, 2012, available at <http://www.boston.com/news/local/massachusetts/2012/10/21/three-wind-turbines-rise-gloucester-wind-turbine-work-ready-start/1FrpCGoto9tnBu4C86kCaN/story.html>

³ See “Governor Patrick Sets New Goals for Wind Power,” Patrick Administration Press Release, January 13, 2009.

increase the region's energy independence, increase fuel diversity, and encourage job growth in the clean energy sector.

In light of the fact that siting is frequently an obstacle to renewable energy development, the Green Communities Act created an energy facilities siting commission to review whether current laws and regulations adequately facilitate the siting of renewable and alternative energy facilities.⁴ See Acts of 2008, c. 169, § 89. To assist with this task, EEA commissioned a study to assess the regulatory and permitting process for wind power development in Massachusetts ("2009 Siting Study" or the "Study"). Among other findings, the Study determined that providing "clear and predictable siting standards" and "guidelines for various technical studies" would be helpful in achieving the state's renewable energy goals. 2009 Siting Study at ES-3.

B. Current Wind Energy Facility Siting Review

The siting, approval and permitting process for land-based WEFs in Massachusetts may involve reviews at the local,⁵ state, regional, and federal levels. It is the Department's intent for the guidance to assist permitting authorities, developers, and the public in achieving better siting outcomes for WEFs through more consistent use of best practices.

⁴ A number of wind siting reform bills, based on the work of the siting commission, were introduced in the Legislature beginning in 2009. To date, none has been adopted into law. In the current session of the Legislature there are multiple bills pending that would address wind siting issues in various ways.

⁵ DOER has developed wind energy model zoning bylaws to provide guidance to municipalities interested in adopting zoning for WEFs. DOER's model bylaws are available at: <http://www.mass.gov/eea/docs/doer/gca/wind-not-by-right-by-law-june13-2011.pdf> and <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/wind-model-by-law-mar-2012.pdf>

II. AREAS OF INQUIRY

In this proceeding, the Department intends to focus on the following categories of issues in developing guidance:

A. Design. This category of review includes such matters as: (1) maximum height, often differentiated by turbine category (*i.e.*, small/residential or utility-scale); (2) setbacks from adjacent property lines, roads, and structures; (3) turbine appearance; (4) lighting of the turbines and related structures; and (5) signage.

B. Environmental and Human Health. This category includes issues such as: (1) noise;⁶ (2) shadow flicker (and sometimes turbine glint); (3) land clearing, soil erosion, and habitat impacts; (4) avian mortality; (5) impacts to other rare and endangered species of flora and fauna; (6) adverse visual impacts; (7) wetlands, ground/surface water quality, and stormwater/drainage impacts; (8) electromagnetic field (“EMF”) levels; (9) solid and hazardous waste; and (10) any other human health effects that may be associated with WEFs.⁷

⁶ As part of the Initiative, MassDEP has convened a technical advisory group to explore possible revisions to its noise policies and permitting approaches for WEFs. The Department intends to adopt any such revisions for use in the guidance produced through this investigation.

⁷ MassDEP, in collaboration with the Massachusetts Department of Public Health, convened a panel of independent experts to identify any documented or potential health impacts of risks that may be associated with exposure to wind turbines and, specifically, to facilitate discussion about wind turbines and public health based on scientific findings. The report of the panel was issued in 2012. The report and comments received on it are available on MassDEP’s website:
<http://www.mass.gov/eea/docs/dep/energy/wind/turbine-impact-study.pdf> and
<http://www.mass.gov/eea/agencies/massdep/service/energy/wind-turbines/wind-public-comment-received-and-information-submitted.html>

C. Safety. This category includes: (1) turbine blade and ice throw; (2) fire safety; (3) spill prevention of hazardous materials; (4) emergency response plans; (5) aviation hazards; (6) radio and signal interference; and (7) site security.

D. Construction Impacts. This category includes: (1) construction vehicle usage; (2) hours of construction and construction-related noise; (3) traffic impacts; and (4) construction road development and use.

E. Socio-Economic Impacts. This category includes: (1) effects of WEFs on property values; and (2) other local economic impacts of WEFs.

F. Decommissioning. This category includes provisions for the removal and restoration of any site when the WEF has discontinued operations.

G. Review Process Matters. This category includes: (1) site plan reviews and other application filing procedures; (2) fees to review projects and defray the cost of consultants retained to assist a municipality; (3) outreach, community consultations, and notice provisions; and (4) the use of mechanisms that may provide added flexibility, such as voluntary agreements between developers and impacted residents.

III. REQUEST FOR COMMENTS

The Department invites interested parties to submit written responses to the questions set forth below. Respondents are welcome to answer any or all of these questions.

1. For each of the issue categories (and sub-issues) identified above, what are the best practices the Department should include in its guidance and why? If these recommendations are reflected in existing siting provisions used in municipal, county, state or federal jurisdictions in the United States or internationally, please cite such provisions and comment on the appropriateness of including such provisions in the Department's guidance.

2. Should the siting guidance for WEFs differ based on location-specific factors such as population density, geographic classifications (i.e., urban/rural/suburban), and land-use classifications of the host site and nearby uses? Should the guidance differ based on the scale of the WEFs (e.g., MW capacity or height of the turbines) or the number of turbines or total capacity of the installation?
3. What types of stakeholder involvement and community outreach are most helpful in reviewing WEF proposals at the local level? Cite or provide examples, if any, of municipalities in Massachusetts or elsewhere that employ such practices.
4. Should the Department recommend to municipalities that they address WEFs through specific zoning/site plan mechanisms? If so, which ones?
5. To what extent are siting guidance considerations for WEFs a reflection of the existing WEF technology? Are there technological developments for WEFs on the horizon that are likely to influence a determination of what constitutes best practices for siting WEFs?
6. How should “successful siting” of WEFs be defined? Provide examples of WEF installations in Massachusetts or elsewhere that illustrate “successful siting” practices. What factors made the siting successful? What data or other information are available to document the successful siting outcomes of such projects?
7. How should “unsuccessful siting” of WEFs be defined? Provide examples of WEF installations in Massachusetts or elsewhere that illustrate “unsuccessful siting” practices. What factors made the siting unsuccessful? What data or other information are available to document the unsuccessful siting outcomes of such projects?
8. What, if any, provisions should the guidance include to address post-construction monitoring and compliance measures?
9. Identify any existing regulatory standards, policies, or practices of Massachusetts state agencies that may adversely affect appropriate siting outcomes for WEFs. What, if any, changes should be made to such standards, policies and practices?
10. Identify any aspects of local, regional, state, and federal regulatory reviews for siting of WEFs in Massachusetts where current siting provisions are in conflict or the actions of permitting entities are at cross purposes. How, if at all, can the guidance help to resolve such conflicts?
11. Are there issues that should be added to or deleted from the list above?
12. How can the Department and other state agencies involved in WEF-related policies and programs best encourage the use of the guidance to achieve the intended benefits?

IV. PROCEDURE

In this investigation, the Department will work closely with other state agencies. In addition, the Department will seek input from other interested parties.

Any person with an interest in the matters discussed above is invited to submit written comments to the Department by December 6, 2013. Comments should be submitted to the Department as follows: (1) in electronic format by e-mail attachment, sent to: the Secretary of the Department at Mark.Marini@state.ma.us; the Department website at DPU.efiling@state.ma.us; to the Hearing Officer, at Kathryn.Sedor@state.ma.us; and Andrew.Greene@state.ma.us, Enid.Kumin@state.ma.us, and Margaret.Howard@state.ma.us; (2) the original hard copy by US mail or hand-delivery, to Mark Marini, Secretary, Department of Public Utilities, One South Station, Boston, Massachusetts, 02110 and one additional hard copy for M. Kathryn Sedor, Hearing Officer, Department of Public Utilities, One South Station, Boston, Massachusetts, 02110.

The text of the e-mail and the cover letter to the hard copy filing should include the following information: (1) the docket number of this proceeding (D.P.U. 13-165); (2) the name of the person or the company and company representative submitting the comments; (3) the mailing address, email address, and telephone number for the person or representative; and (4) a brief descriptive title of the document. Comments should be submitted in Microsoft Word or as an Adobe PDF file. Data or spread sheet attachments should be compatible with Microsoft Excel.

A copy of all comments will be available for public inspection at the Department's offices during business hours. In addition, the comments will be posted on the Department's

website, <http://www.mass.gov/eea/energy-utilities-clean-tech/siting-division-of-the-dpu/siting-division-dockets.html>.

Following receipt and review of the comments, the Department anticipates holding public hearings beginning in January 2014, and issuing a draft wind siting guidance proposal for comment in the spring of 2014.

Any person desiring further information regarding this Notice may contact the Hearing Officer at the address, email, or telephone number below:

M. Kathryn Sedor, Hearing Officer
Department of Public Utilities, Siting Division
One South Station
Boston, MA 02110
Kathryn.Sedor@state.ma.us
617-305-3525

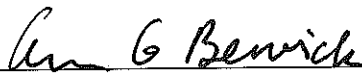
V. ORDER

Accordingly, the Department

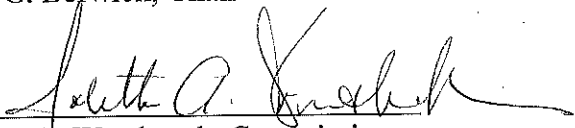
VOTES: To open an investigation into wind siting best practices; and it is

ORDERED: That the Secretary of the Department shall publish notice of this investigation in The Boston Globe and the Boston Herald, statewide papers of daily circulation within the Commonwealth, and the Environmental Monitor.

By Order of the Department,



Ann G. Berwick, Chair



Jollette A. Westbrook, Commissioner



David W. Cash, Commissioner