



For Release:
January 17, 2012

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Independent Expert Science Panel Releases Report on Potential Health Effects of Wind Turbines

Mass. Department of Environmental Protection Opens 60-Day Comment Period, Sets Three Public Meeting Dates for February in Boston, Bourne and Lee

BOSTON - An independent panel of experts studying potential health impacts of wind turbines has issued its report, Wind Turbine Health Impact Study: Report of the Independent Expert Panel. The Massachusetts Department of Environmental Protection (MassDEP) convened the panel in collaboration with the Massachusetts Department of Public Health (MDPH). The panel was composed of physicians and scientists with broad expertise in areas including acoustical noise/infrasound, public health, sleep disturbance, mechanical engineering, epidemiology, and neuroscience. Three public meetings on the report will be held in February as part of a 60-day comment period.

The independent report was proactively sought to help address questions that have been raised by members of the public about potential human health impacts associated with proximity to wind turbines. The panel was asked to identify any documented or potential human health impacts or risks that may be associated with exposure to wind turbines in order to facilitate discussion of wind turbines and public health based on the best available science. The panel was also asked to offer suggestions relative to best practices.

Due to the high level of interest in the panel's findings, the report is being made available to the public at the same time it is being reviewed by the agencies. Access the report here: www.mass.gov/dep/energy/wind/panel.htm/dep/energy/wind/panel.htm

"This is a complex issue that the panel spent many months studying. We took our work very seriously," said panel member Wendy Heiger-Bernays, PhD, who is an Associate Professor of Environmental Health at the Boston University School of Public Health. "By reviewing the available data and information, we believe that we have significantly added to the understanding of the potential for health effects from wind turbines."

"We appreciate the hard work of the independent expert panel to evaluate the issues and complete this report, which will help inform future discussions with the public on wind turbines," MassDEP Commissioner Kenneth Kimmell said. "It is extremely important that we have the best science available to us as we make decisions on wind energy."

"We appreciate the thoroughness of the report made possible by the particular expertise of the panel members," Public Health Commissioner John Auerbach said. "We will continue to work closely with MassDEP as we solicit feedback on the report during the public comment period."

Among the key findings of the panel are:

- There is no evidence for a set of health effects from exposure to wind turbines that could be characterized as a "Wind Turbine Syndrome."
- Claims that infrasound from wind turbines directly impacts the vestibular system have not been demonstrated scientifically. Available evidence shows that the infrasound levels near wind turbines cannot impact the vestibular system.
- The weight of the evidence suggests no association between noise from wind turbines and measures of psychological distress or mental health problems.
- None of the limited epidemiological evidence reviewed suggests an association between noise from wind turbines and pain and stiffness, diabetes, high blood pressure, tinnitus, hearing impairment, cardiovascular disease, and headache/migraine.
- There is limited epidemiologic evidence suggesting an association between exposure to wind turbines and annoyance. There is insufficient epidemiologic evidence to determine whether there is an association between noise from wind turbines and annoyance independent from the effects of seeing a wind turbine and vice versa.

- There is limited evidence from epidemiologic studies suggesting an association between noise from wind turbines and sleep disruption. In other words, it is possible that noise from some wind turbines can cause sleep disruption. Whether annoyance from wind turbines leads to sleep issues or stress has not been sufficiently quantified. While not based on evidence from wind turbines, there is evidence that sleep disruption can adversely affect mood, cognitive functioning, and overall sense of health and well-being.
- Scientific evidence suggests that shadow flicker does not pose a risk for eliciting seizures as a result of photic stimulation. There is limited scientific evidence of an association between annoyance from prolonged shadow flicker (exceeding 30 minutes per day) and potential transitory cognitive and physical health effects.

The panel's charge did not include investigating or addressing reported problems at any particular turbine installation, though the panel did receive extensive public comment, including from residents who live near wind turbines. Instead, the panel was tasked with reviewing extensive existing information within their areas of expertise to determine the potential for health effects. They looked at both peer-reviewed and non-peer-reviewed studies.

Public Meetings and Comment Period

A public comment period on the report is now open until Monday, March 19 at 5p m. Electronic comments can be submitted to: WindTurbineDocket.MassDEP@MassMail.State.MA.US mailto:WindTurbineDocket.MassDEP@MassMail.State.MA.US

Written comments can be submitted to:

MassDEP Wind Turbine Docket
One Winter Street
Fourth Floor
Boston, MA 02108

Verbal and written comments may also be submitted at the following three public meetings:

- Tuesday, February 14, from 10 a m. to 1 p m. - Gardner Auditorium in the Statehouse, 24 Beacon Street, Boston (Please note the [updated location /dep/public/press/0112wpch.htm](/dep/public/press/0112wpch.htm), moved from MA DOT to the Gardner Auditorium).
- Thursday, February 16, from 5-8 p m. - Bourne High School, Beth Bourne Auditorium, 75 Waterhouse Road, Bourne.
- Tuesday, February 28, from 5-8 p m. - The Lee Middle and High School Auditorium, 300 Greylock Street, Lee. Snow date: February 29th.

Comments received will be considered prior to the report's use by or adoption by any state agencies.

For additional information about this study, please visit MassDEP's Wind Turbine Web Page at:

www.mass.gov/dep/energy/wind/panel.htm/dep/energy/wind/panel.htm

Although beyond the scope of the original charge, two members of the panel - on their own initiative - also submitted to the agencies an addendum report focusing on a brief review of wind power in Denmark, Germany, Sweden, Vermont and Maine. That addendum report can be reviewed here: www.mass.gov/dep/energy/wind/panel.htm/dep/energy/wind/panel.htm

For the media: MassDEP Commissioner Kenneth Kimmell and members of the independent panel will be available to talk to the media via teleconference on Tuesday, Jan. 17 at 2 p m. Media members can join the teleconference by calling: 1-877-820-7831, and entering the code: 453453#

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