



News Release

Expert Panel finds that annoyance can be caused by wind turbine noise -- a clear adverse health effect

Ottawa (April 9, 2015) – A new expert panel report, ***Assessing the Evidence: Wind Turbine Noise***, released today by the Council of Canadian Academies provides an in-depth examination of 32 potential adverse health effects linked to wind turbine noise. For most of the identified symptoms, the evidence is inadequate to draw a direct link between wind turbine noise and a negative health effect. However, there is sufficient evidence of a causal relationship between exposure to such noise and annoyance.

Determining whether wind turbine noise causes adverse health effects is an important issue as demand for renewable energy, including wind power, is expected to grow in Canada and around the world. The wind sector has expanded rapidly since the 1990s, and Canada is now the fifth-largest global market for the installation of wind turbines. With this demand, however, come concerns that the presence of wind turbines may pose a public health risk to nearby residents. In response to public concern, Health Canada asked the Council of Canadian Academies to conduct an in-depth expert panel assessment to evaluate the evidence and identify gaps in knowledge.

“The Panel looked at what had been written on the potential health effects of exposure to wind turbines, in the scientific literature, legal cases, and the most informative public documents,” said Dr. Tee Guidotti, Expert Panel Chair. “We identified 32 health issues and then analyzed the published peer reviewed studies on each problem to determine if there was evidence for a causal relationship with wind turbine noise.”

The Panel’s report stresses that, given the nature of the sound produced by wind turbines and the limited quality of available evidence, the health impacts of wind turbine noise cannot be comprehensively assessed and further information and study are required.

The Panel outlined 11 main findings discussed in the full report. Some findings include:

1. The evidence is *sufficient* to establish a causal relationship between exposure to wind turbine noise and annoyance.
2. There is *limited* evidence to establish a causal relationship between exposure to wind turbine noise and sleep disturbance.
3. The evidence suggests a *lack of causality* between exposure to wind turbine noise and hearing loss.
4. For all other health effects considered (fatigue, tinnitus, vertigo, nausea, dizziness, cardiovascular diseases, diabetes, etc.), the evidence was *inadequate* to come to any conclusion about the presence or absence of a causal relationship with exposure to wind turbine noise.
5. Technological development is unlikely to resolve, in the short term, the current issues related to perceived adverse health effects of wind turbine noise.

6. Impact assessments and community engagement provide communities with greater knowledge and control over wind energy projects and therefore help limit annoyance.

The Expert Panel's assessment was extensive; they considered a wide range of evidence and developed a rigorous methodology for their work. The resulting report provides key information and insights on what is known and not known about wind turbine noise and its possible impacts on human health. The foundation of knowledge contained in the report can support all levels of government, the scientific community, industry, and community stakeholders as future policies, regulations, and research agendas are considered.

-30-

For more information or to download a copy of the Panel's report, visit the Council of Canadian Academies' website, www.scienceadvice.ca.

About the Council of Canadian Academies

The Council of Canadian Academies is an independent, not-for-profit organization that began operation in 2005. The Council undertakes independent, authoritative, science-based, expert assessments that inform public policy development in Canada. Assessments are conducted by independent, multidisciplinary panels (groups) of experts from across Canada and abroad. Panel members serve free of charge and many are Fellows of the Council's Member Academies. The Council's vision is to be a trusted voice for science in the public interest. For more information about the Council or its assessments, please visit www.scienceadvice.ca.

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