

based wind developers to minimize impacts to birds, bats and their habitats, as reported by *Scientific American* in August, 2012. Several conservation groups were consulted, including the National Audubon Society. In Ontario, environmental commissioner, Gord Miller, in an editorial commentary in the *Toronto Star* of October 2, 2012, recommended that, "the Ministry of Natural Resources (MNR) should prohibit any new wind farms in the 70 Important Bird Areas (IBAs) in Ontario." That would include Long Point Peninsula and Marshes, Point Pelee and the Leslie Street Spit. He also recommended the province, "increase protection for migratory bats, which are the bats most at risk of being killed by wind turbines." Certainly, there is well-placed concern over the issue, but one wonders why there seems to be so much less concern over some of the other factors in bird and bat mortality, such as pesticides, tall lakeside condos, and feral cats.

On April 3, 2012, Canadian Press issued the following headline: "Ontario being sued \$1 billion for moratorium on offshore wind farms." The story by Keith Leslie relates to SouthPoint Wind's work in developing wind farm projects in Lake Erie. Regarding the water quality issue it states:

"SouthPoint Wind also rejected the government's claim that more study

is needed on locating giant wind turbines in fresh water. 'There is absolutely no indication of potential water-quality issues with respect to offshore wind power locations which would justify the cancellation and confiscation of the plaintiff's site for water-quality studies and examinations,' according to the claim."

After considering all these factors, we still have the moratorium in place. But presumably the reason for the moratorium is to give us time to study the issues more closely. What studies has the TRCA initiated, or what studies are they monitoring with direct reference to issues on Scarborough's lakefront that might be affected by this project? And how long do we need to wait for the results?

Is it time to lift the moratorium? Surely, a full environmental assessment led by experts in the field, and within a reasonable time-frame, would be the most objective way to determine how significant these environmental concerns really are in relation to the broader scheme of things. Only then would we be well-enough informed to enter the political debate using these arguments for or against this particular off-shore wind turbine project.

Six to nothing:

Wind Energy Wins Against Wind Energy Opponents

Environmental review tribunal dismisses every case of alleged health impacts

By David Donnelly and Anne Sabourin

On the legal scorecard, challenges to wind turbines or wind mills on the grounds that they may cause impacts on health amount to little more than hot air. Despite overwhelming scientific evidence that wind turbines do not impair human health, and with no proof to the contrary, the appeals and cost of these appeals to Ontario taxpayers keep coming.

Five times, opponents of the Green Energy Act have argued the "health impacts" of significant wind energy projects. Five times, the Ontario Ministry of the Environment (MOE) has defeated these appeals before the Ontario Environmental Review Tribunal (ERT).

Ontario has one of the most restrictive and protective wind turbine setbacks in the world, so why all the fuss? Recent studies from New Zealand, Australia, and Ontario offer some insight, suggesting other factors besides the turning blades—like the suggestive power of negative stories circulated in the media—may be to blame.

A quick review of the cases

Erickson v. Director, Ministry of the Environment

The first Renewable Energy Approval (REA) was issued by the MOE to Kent-Breeze Wind Farms on November 10, 2010. Chatham-Kent Wind Action and Ms. Katie Brenda Erickson appealed the REA, alleging the proposed eight wind turbine project (20 mega-watts or MW), "...will cause serious harm to human health."

This appeal involved days of evidence from epidemiologists, Chatham-Kent's Acting Medical Officer of Health, acousticians and noise engineers. After the hearing, the ERT reached a definitive conclusion:

"With respect to the Kent-Breeze Project, on the totality of evidence, there is insufficient evidence to suggest that there will be serious harm to human health if the MOE Noise Guidelines are followed. In other words, there is insufficient evidence to show that serious harm to human health will be caused by exposure to noise below 40 dB at the Kent-Breeze Project" (Page 192).

The ERT comments that the debate is about "safe limits," and in this case, there was no evidence showing that serious indirect harm to health would occur. Further, the MOE's noise guidelines for wind turbines are consistent with international approaches.

For wind energy advocates and residents, this seemed to be the end of this story, barring any dramatic production of real evidence of harm to human health by turbines. This proved not to be the case.

Chatham-Kent Wind Action v. Director, Ministry of the Environment

Chatham-Kent Wind Action challenged the second REA issued for a wind turbine project, but at the proceedings, did not call any evidence or make any submissions regarding harm to human health. The ERT rejected this challenge and as there was, "...no evidentiary basis whatsoever..." presented to find that the project would adversely affect human health, dismissed the appeal.

Middlesex-Lambton Wind Action Group Inc. v. Director, Ministry of the Environment

Middlesex-Lambton Wind Action Group (Wind Action) appealed the REA obtained by Zephyr Farms in October 2011, involving the construction and operation of four wind turbines with a total generation of 10 MW. The MOE brought a motion for disclosure from Wind Action's witnesses, who were claiming significant health impacts would occur if the project were built. The ERT ordered Wind Action to provide witness statements that included relevant facts of the allegation—the location where each individual lived in relation to a turbine project, information about each wind turbine project, measured noise levels at each location and the specific symptoms and particular medical conditions suffered by each individual. By including this information, the ERT would know details of the case being presented. However, the next day, Wind Action withdrew its appeal.

Two additional cases rendered the same result—orders from the ERT to disclose particulars of the appellants' evidence, followed by the withdrawal of the appeal. (*Preserve Mapleton Incorporated v. Director, Ministry of the Environment* and *Haldimand Wind Concerns v. Director, Ministry of the Environment*.)

A Failed Attack on the Rules: Wainfleet Wind Energy Inc. Case

The Township of Wainfleet, Ontario enacted a municipal by-law requiring

that wind turbines be located a minimum of two kilometres from "property" as defined in the by-law. The by-law was, apparently, motivated by a concern for public health from the noise generated by wind turbines. This by-law would prevent Wainfleet Wind Energy's project application from going forward. Per current regulation, all projects must be located at least 550 metres from the nearest noise receptor, for example, a nursery or residence.

The Court stated the Province, "...relied on significant scientific evidence and public consultation in arriving at the 550 metre minimum setback distances. Its process for establishing the setback requirements in [the MOE regulation] has been reviewed and approved by the Division Court."

Importantly, the Court commented that the by-law, "was devised based on general ratepayer concerns about potential harm from noise, rather than direct evidence." It is clear the perception of harm from wind turbines is a major factor in these appeals, and three recent studies offer some insight as to why.

Are concerns about wind energy all in their heads?

A study by PhD candidate Fiona Crichton (University of Auckland), published in March, 2013 in the peer-reviewed journal *Health Psychology* examined whether the power of suggestion could induce symptoms associated with Wind Turbine Syndrome. (Note that Wind Turbine Syndrome is not medically recognized.)

Participants were presented with either television footage of people living near wind farms telling their experience of symptoms they believed were caused by wind farms, or a DVD presenting the scientific position that exposure to wind turbine infrasound would not cause symptoms. Then, participants were exposed to infrasound or sham infrasound. The study found the symptoms reported by the healthy volunteers after exposure to the infrasound or sham infrasound aligned with the information presented prior to their exposure. The authors, "...suggest psychological expectations could explain the link between wind turbine exposure and health complaints."

A second recent study from Australia, unpublished but released for comment prior to publication, also addresses the crucial role of the power of suggestion. Dr. Simon Chapman, Professor of Public Health, and his research team conducted a historical audit of all complaints made concerning wind farm noise or health problems for Australia's 49 wind farms. Dr. Chapman found that a surge in health complaints from Australian wind farms might have been attributable to increased discussion of health risks associated with wind farms.

Dr. Chapman found 79 per cent of complainants made their first complaint after 2009. This date is significant; it was then that anti-wind farm groups began to add health concerns to their wider opposition to wind farms.

In Ontario, a recently published study in *Health, Risk and Society* analyzed coverage of the health effects from wind turbines in Ontario. The authors selected five wind farms in Ontario and analysed newspaper articles about the health effects of wind turbines in newspapers serving those communities from 2007-2011. 94% of newspaper coverage contained negative or fear-evoking descriptions of health-related symptoms associated with wind turbine exposure, while just over half contained statements related to a poor scientific understanding of health and wind turbines. The notions of "dread" and "poorly understood by science" occurred more often in community newspapers, and increased in frequency after the Green Energy Act was introduced.

Bear in mind that in Ontario, there are very few (if any) industries or land uses (e.g. quarries, highways, airports, etc.) that require location 550 metres from the nearest residence. Can you imagine the chaos that would ensue if we were to regulate this way, and not base our decisions on real evidence?

The good news is that wind is winning, as are we all.

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