



association to protect AMHERST ISLAND

APAI NEWSLETTER - JUNE 2010

There have been a number of recent developments and it is important that the members of APAI know about them and respond to them.

THE HEALTH IMPACT ISSUE

Dr. Arlene King, the Chief Medical Officer of Health for Ontario (CMOH) released her report on "The Potential Health Impact of Wind Turbines". Some will have seen a copy because it was circulated on the island by Windlectric Inc. The overriding conclusion of the report is: "According to the scientific evidence, there isn't any direct causal link between wind turbine noise and adverse health effects." This conclusion glosses over the fact that the World Health Organization recognizes annoyance and sleep disturbance as adverse health effects and that annoyance and sleep disturbance eventually lead on to other adverse health effects such as headaches, depression, loss of concentration. That is, there are direct health impacts as defined by the W.H.O. and indirect health impacts. The CMOH report, as the earlier Canadian/American Wind Energy Associations report, acknowledges annoyance as an impact of wind turbines.

The CMOH report can be found at:

http://www.health.gov.on.ca/en/public/publications/ministry_reports/wind_turbine/wind_turbine.pdf

The APAI response to the report, prepared as an island circular, is appended to this Newsletter. The Society for Wind Vigilance (SWV) response can be found at: http://windvigilance.com/CMOH_Analysis.aspx

SWV has received many e-mails about its response to the CMOH report. One reads as follows: "I have read only half of the analysis of the literature review. It's so clear and easy to understand. I really get too emotional when reading the truth about turbines but I will finish reading it eventually. I know the truth about turbines. I live the truth about turbines. I feel the truth about turbines but sometimes I think I'm going crazy and forget that what I know is really true and really happening. It's reassuring to see it on paper. This has got to convince those who make the decisions to destroy the lives of people that turbines are killing us! They must stop the madness. Thank you and please thank everyone who wrote this paper. (Name withheld)"

WINDSTREAM OFF-SHORE PROJECT

This project, with a name-plate capacity of 300 MW, has been awarded a contract by the Ontario Power Authority under the Feed-In-Tariff program. The optioned water rights extend from Wolfe Island to Prince Edward County and

from the US border in the south to Amherst Island in the north (a total of 48,000 acres). The total cost is estimated to be \$1.5 billion. No decision has been made on how many turbines will be erected or the capacity of the individual turbines. However, the 300 MW project determines that there will be anywhere from 83 (3.6 MW) to 130 (2.3 MW) turbines. For comparison, the Wolfe Island project has 86 (2.3 MW) turbines. These decisions will not be made until 2012. Likely spacing will be 9 blade diameters in the prevailing wind direction and 5 blade diameters in the cross wind direction, suggesting that 15,000 to 20,000 acres will be required. Pigeon Island is the reputed centre.

The next two years will be devoted to getting approval under the Renewable Energy Approval process regulated by the Ministry of the Environment and determining the quality of the wind resource. In addition, Windstream needs a partner; the executives of Windstream were the original developers for the Wolfe Island project but sold out to Canadian Hydro Developers. The following two years (2013 and 2014) will be for engineering decisions, including a site plan, placing orders and construction. Along the way we have been assured that there will be consultation with the interested public.

In an April 14th article in the Whig-Standard written by Paul Schliesmann, Mark Mattson, President of Lake Ontario Waterkeepers, was reported to be watching a number of issues, including navigation and safety for recreational boaters, proximity to commercial shipping lanes, the effects on bird habitat, and the cumulative effect of wind turbines on the St. Lawrence River and Thousand Islands region. He noted that thousands of turbines are expected to be built in eastern Ontario and northern New York State over the next decade. Mattson is puzzled by how the Niagara Escarpment and Greenbelt area are exempted from turbine development in the province's Green Energy Act, yet Wolfe Island, an important migratory bird location, and the Thousand Islands aren't protected.

MINISTRY OF THE ENVIRONMENT LETTER TO LOYALIST TOWNSHIP

At the Council Meeting held May 25th, a letter from MOE to the Township was tabled as an item of information. This letter was in response to a letter from the Reeve expressing concern about the impact of the Windstream project on the Township and Amherst Island in particular. The MOE letter reviews all of the processes that Windstream must follow to obtain approval under the Renewable Energy Approval process. This includes consultation with local municipalities and at least two community consultation meetings. In addition, for an off-shore project Windstream will likely need to obtain permits under the Federal Fisheries Act and/or Navigable Waters Protection Act that would trigger a federal environmental assessment. APAI appreciates the involvement of the Township in expressing concerns; MOE is more likely to pay heed to the Township than to individuals or to APAI. The letter can be downloaded from Loyalist Township at: <http://loyalist.fileprosite.com/FileStorage/A83B34B4C87D4D7B9901FCC4E3829E88-Ministry%20of%20the%20Environment.pdf>

TRILLIUM OFF-SHORE PROJECT

Loyalist Township has informed us that a second off-shore project in our area of the lake is going through the approval process although it does not yet have a signed contract from the Ontario Power Authority. The nameplate capacity of the project is 414 MW, 138 x 3 MW turbines. The development is planned to be centered 500 metres southwest of Main Duck Island on the Ducks-Galiloo Ridge. The underwater power cable is planned to connect to the Lennox power station via the channel between Amherst Island and Prince Edward County. A Draft Description Report is available online at: www.trilliumpower.com/media. Open houses will be held July 6th at the Napanee Lion's Hall and July 7th at the Prince Edward Community Centre, both 5:00 to 9:00 pm.

ONTARIO NATURE

A very important step has been taken by Ontario Nature thanks to two local naturalists groups. At its Annual General Meeting, Ontario Nature passed the following motion: Be it resolved that Ontario Nature – Federation of Ontario Naturalists 1) calls upon the government of Ontario to place a moratorium on wind farm development within 5 km of known significance to migrating birds and National Parks, Provincial Parks, and Important Bird Areas, until multi-year radar studies of bird migration are conducted at proposed development sites; and 2) urges the government to protect these sites from wind farm development if studies determine that they have significant bird migration concentrations, for example of over 100,000 birds in a season or are found to be situated within major migratory pathways.

The motion was moved by Myrna Wood (Prince Edward County Field Naturalists) and seconded by Erwin Batalla (Kingston Field Naturalists). We owe these people a debt of gratitude; Amherst Island is an Important Bird Area and of wide renown to bird watchers.

The complete motion can be read at:

<http://windconcernsontario.wordpress.com/2010/06/01/ontario-nature-to-lobby-for-5-km-buffer-from-important-bird-areas/#more-11941>

ERNESTOWN WIND

Ernestown Wind received approval from the Ontario Power Authority under the Feed-In-Tariff program for a 10 MW wind development on the industrial lands north of Amherst Island between Highway 33 and Taylor Kidd Boulevard. The company has had a consultation with Loyalist Township. Murray Beckel, Township Planner, has informed APAI that any day now the company will have a web-site with details of the development.

APPENDIX: Response to the CMOH Report on Adverse Health Effects from Wind Turbine Operation

On May, 20th 2010, Dr. Arlene King, Chief Medical Officer of Health (CMOH) for Ontario, released a report on the adverse health effects of wind turbine operation. Soon thereafter Windlectric Inc., together with CAIRE, circulated island-wide a copy of the report together with a press release from the Ontario government.

The Association for the Protection of Amherst Island (APAI) finds that the CMOH report is flawed.

The CMOH report concludes as follows:

- a) Some people living near wind turbines report symptoms such as dizziness, headaches and sleep disturbance;
- b) The scientific evidence to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects.
- c) The sound level from wind turbines at common residential setbacks is not sufficient to cause hearing impairment or other direct health impacts, although some people may find it annoying. It has been suggested that annoyance may be a reaction to the characteristic “swishing” or fluctuating nature of wind turbine sound rather than to the intensity of the sound.
- d) Other concluding statements are referred to below.

Contrary to the statements of CMOH are the findings of the World Health Organization which acknowledges the relationship between annoyance and other health effects and recognizes noise as an “environmental health hazard”.

The adverse health effects are indirect in character: annoyance, sleeplessness and disturbed sleep lead to stress, head-aches, inability to concentrate, depression, a sense of worthlessness and anger

CMOH’s report and the earlier report sponsored by the Canadian and American Wind Energy Authorities are skirting the issue. Claiming there are no direct health impacts when they know full well there are health impacts that are indirect in nature is a way to support the agenda of the provincial government and the wind industry.

Unfortunately it is not unusual for organizations to minimize or hide findings in order to support their agendas – especially where large amounts of money are concerned. Tobacco companies are a prime example.

It is fact that more than one hundred people living near wind turbines in Ontario have reported adverse health effects. Over a dozen families in Ontario have abandoned their homes because they could not take the noise.

In some cases, wind energy developers have purchased the properties but at what price we do not know because of associated gag orders.

Dr. King has misquoted from field studies of annoyance due to wind turbine noise. The CMOH report includes the statement: "The sound was annoying only to a small percentage of the exposed people; approximately 4 to 10% were very annoyed at sound levels between 35 and 45 dBA."

After reviewing the original publications we find the following: The authors broke down the responses to turbine noise from the surveys (586 non-participants in the Netherlands and 1095 mostly non-participants in Sweden) into five categories: do not notice; notice but not annoyed; slightly annoyed; rather annoyed; and very annoyed. The survey population was grouped by the noise level at their homes: 30 to 35 dBA, 35 to 40 dBA etc.

The authors add together "rather annoyed" and "very annoyed" when determining annoyance from turbine noise. Figure 2 of the 2009 publication by Dr. Pedersen and colleagues shows very clearly that the fraction of respondents annoyed was 20% and 25% in the ranges 35 to 40 dBA and 40 to 45dBA respectively for the Dutch survey and was 9% and 29% for the two ranges in the Swedish survey. As in any survey, there is uncertainty; the authors put the uncertainty at about 5% in the above percentages.

For reference, the noise limit regulation for Ontario is 40 dBA for wind speeds up to 22 km/h with the possibility of rising to 51 dBA for wind speeds up to 36 km/h. Dr. King is quite correct in writing that annoyance due to transportation noise at the same level is very much smaller, about 3%.

A major criticism of the CMOH report is that no attempt was made to meet with those in Ontario who are suffering adverse health impacts. It would have been very easy for Dr. King to have asked the local medical officers of health to talk with those in their communities who have registered complaints and to have visited their homes to experience the night-time noise that causes the annoyance and sleep disturbance. After all, these medical officers are first and foremost doctors.

Another major criticism is that no attempt was made to investigate whether the real noise levels at the homes of those suffering were above or below the regulation noise limit. The Ministry of the Environment has been overwhelmed by complaints of excess turbine noise and has reacted by claiming that there is no protocol for measuring noise levels at homes.

This is nonsense. Acoustics consultants have been performing noise audits in all sorts of situations and environments for years. Consultants have indeed performed noise audits of turbine noise. One audit performed by a very experienced company on behalf of a major developer showed noise levels at an Ontario home above the Ontario noise limit for all wind speeds above 10 km/h and at times 25 dBA above the 40 dBA limit. The CMOH report accepts this state of affairs.

We believe that until audits in response to complaints can be made routinely, there should be a moratorium on all new development.

In writing the report, Dr. King does not seem to know what the Ministry of the Environment is allowing in its regulations. For instance, in the report we read that a complete blade has been thrown 150 metres, a blade fragment 500 metres and sizeable ice fragments 100 metres. Later: The risk of injury is minimized with setbacks of 200 to 500 metres. However, Technical Bulletin Six issued by MOE on March 1, 2010 allows a setback of hub-height plus 10 metres (i.e. 90 metres) from public roads and a setback of hub-height (i.e. 80 metres) from property lines. A proponent can even apply to reduce the setback from a property line, over the objection of the neighbour.

Again, in the report we read that the minimum setback from a receptor is 550 metres. Until Technical Bulletin Six this was true. Now, a participating receptor is no longer subject to this minimum setback. This is regardless of the fact that the participating receptor may have a family and that the 550 metre setback was put in as a mild effort to avoid adverse health effects.

Yet again, we read in the report that setbacks now extend beyond 550 metres with an increased number of turbines, with an example of 950 metres for five 107 dBA turbines within a 3 km radius of the receptor. In fact, the MOE regulations that accompanied the Green Energy Act allow the developer to hire a consultant and use the old October 2008 noise and setback regulations, subject to the minimum 550 metres for non-participating receptors.

The CMOH report finishes with un-supported statements that allegation of adverse health impacts may diminish if there were more community engagement, fairness and equity. As if these things will change the noise intrusion and resulting annoyance and sleep disturbance!

For a more detailed critique of the CMOH report please see the website of the Society for Wind Vigilance at http://windvigilance.com/CMOH_Analysis.aspx