

BEST PRACTICES regarding **INDUSTRIAL WIND TURBINES**
presented to the Planning Committee of the Township of West Lincoln
Oct. 9, 2012

The **1.8 MW Industrial Wind Turbines** that IPC proposes to install in West Lincoln would be **475 feet tall**, they would be the **tallest Industrial Wind Turbines in Ontario**. The **3MW Industrial Wind Turbines** that Niagara Regional Wind Corporation proposes to install would be **575 feet tall**. *These turbines would be tallest in North America!* It is not possible to visit communities that have wind turbines this large. It is however, possible to visit communities that have large Industrial Wind Turbines installed with a 350 meter setback. Port Burwell is a community that has large Industrial Wind Turbines with too small of a setback, that does **not protect the health of the people, the property values of nonparticipating neighbours nor the environment..**

Best Practice #1

Children, the ill and the elderly are the most vulnerable members of our community and deserve special consideration. The present wind turbine proposal would have 11, 3MW Wind Turbines within a 3 km. Radius of Gainsboro Public School. This would guarantee that the children's behaviour would be impacted. We could expect more angry & aggressive outbursts, increased learning difficulties, decreased concentration to name, only a few possible symptoms.

The **best practice must be more restrictive to protect this population**. We recommend that this council increase the recommended setbacks as the IWT's increase in size. For a **2MW IWT the safe setback from schools, hospitals and senior citizen's homes should be 2 km and for 3MW IWTs the distance should be 3km.**

Best Practice #2

Health issues are a major concern. For non-participating neighbours. We recommend that this council direct staff to contact Dr. Hazel Lynn the MOH of Grey Bruce. In 2010 Dr. Lynn was a dissenting voice in the Ontario Chief Medical Officers of Health report. (CMOH).Dr. Lynn has publically stated that the 550 meter setback is not adequate, and that 5-10% of persons living even further from the turbines are being adversely affected. Her concerns were the health effects of **Low Frequency Noise** produced by the industrial wind turbines. **Dr. Lynn's recommendation was for a minimum set back of 1 to 1.5 km. From all residences for smaller wind turbines.** The larger industrial wind turbines produce even more Low Frequency noise so would require a longer setback to protect the health of our residence. The council meeting were Dr. Yeager (our local MOH) attended you may recall that she noted that since we do not have peer reviewed article on the effect of 3MW Turbines the reports that we can read are and I quote **“comparing apples to oranges”**

Best Practice #3

Property Devaluation is a huge concern of all citizens in our municipality.

We recommend that his council adopt the practice followed in Denmark---where a property values appraisal is conducted and if the property value of non-participating neighbours decreases by more than 1% the industrial wind turbine corporation must compensate the nonparticipating neighbours prior to the construction and installation of the IWTs. Denmark found that this was a good way to encourage the IWT Corporations to locate IWTs where they create the least problems.

Best Practice #4

Industrial Wind Turbines that are too close together make more noise because noise resonate.

According to one of the ENERCON sales representatives at the Sept. 20, 2012 meeting the 3MW ENERCON IWTs need to be situated 6 blade diameters apart (660 meters) so that the turbulence of one does not interfere with the efficiency of the next one. According to this recommendation 32 of the 77 (40%) of the 3MW IWTs that the NRWC has proposed to install would be less than 660 meters apart. Research from John Hopkins University recommends a minimum spacing of 15 blade diameters apart. As a result John Hopkins recommends 1.5 km distance between industrial wind turbines.

We recommend that this council contact ENERCON and John Hopkins University to determine realistic distances between wind turbines.

Best Practice # 5

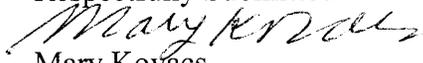
According to the provincial government IWTs are to be installed with a minimum setback of 550 meters. However the noise level is not to exceed 40dB decibel.

To ensure that nonparticipating neighbours are not being subjected to sound levels that are more than 40dB we recommend that all nonparticipating neighbours within a 2 km radius be equipped with noise monitors supplied by the Niagara Regional Wind Corporation. When the **noise level exceeds 40dB** they would then contact someone in the municipality with the authority to turn off the IWTs. The turbines would stay turned off until the noise level is solved to the satisfaction of both the nonparticipating neighbours and the IWT corporation.

The **West Lincoln Council has asked for a moratorium** on the establishment of any new IWTs. The council would like a comprehensive, independent and peer reviewed scientific study to determine that the IWT projects do not pose a risk to this community, nor to the health of its citizens, their property values and to our rural environment. **We support this moratorium**

The Industrial Wind Turbines proposed by the Niagara Regional Wind Corporation are too big, too close to our homes and are packed too close together.

Respectfully Submitted



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