

**DRAFT AMENDMENT NO. 8  
TO THE  
TOWNSHIP OF WARWICK  
OFFICIAL PLAN**

County of Lambton  
Planning and Development  
Department  
March 2008

**TOWNSHIP OF WARWICK**  
**Official Plan Amendment No. 8**

This amendment was adopted by the Council of the Corporation of the Township of Warwick by By-law \_\_\_\_ of 2008 in accordance with the provisions of Section 21 (1) and 17 (15) of the Planning Act, R.S.O. 1990, on the \_\_\_\_ day of \_\_\_\_\_, 2008.

Corporate  
Seal

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Administrator-Treasurer

**CERTIFICATE OF COMPLIANCE**  
**WITH PUBLIC INVOLVEMENT**  
**AND NOTICE REQUIREMENT**

I, Don Bruder, Administrator-Treasurer for the Township of Warwick, hereby certify that the requirements for the holding of at least one public meeting as set out in subsection 17(15) of the Planning Act, R.S.O.1990 and the giving of notice as set out in subsection 17(19) of the Planning Act, R.S.O.1990, have been complied with.

\_\_\_\_\_  
Administrator-Treasurer

**TOWNSHIP OF WARWICK**  
**BY-LAW NUMBER   31   OF 2008**

The Council of the Corporation of the Township of Warwick, in accordance with the provisions of Section 17 (22) of the Planning Act, R.S.O. 1990, hereby enacts as follows:

1. Amendment No. 8 of the Township of Warwick Official Plan consisting of the attached text is hereby adopted.
  
2. The Administrator-Treasurer is hereby authorized and directed to make application to the County of Lambton for approval of Amendment No. 8 to the Township of Warwick Official Plan.
  
3. This By-law shall come into force and take effect on the day of the final passing thereof.

ENACTED AND PASSED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2008.

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
ADMINISTRATOR-TREASURER

Certified that the above is a true copy of By-law No.   31   of 2008 as enacted and passed by the Council of the Corporation of the Township of Warwick on the \_\_\_\_\_ day of \_\_\_\_\_ 2008.

\_\_\_\_\_  
Administrator-Treasurer, Township of Warwick

**AMENDMENT NO. 8  
TO THE TOWNSHIP OF WARWICK  
OFFICIAL PLAN**

**INDEX**

<b>STATEMENT OF COMPONENTS</b>	<b><u>PAGE</u></b>
 <b><u>PART A - THE PREAMBLE</u></b>	
1. PURPOSE.....	1
2. LOCATION.....	1
3. BASIS .....	1
 <b><u>PART B - THE AMENDMENT</u></b>	
1. INTRODUCTION.....	2
2. DETAILS OF THE AMENDMENT.....	2
3. IMPLEMENTATION AND INTERPRETATION .....	9
 <b><u>PART C - APPENDIX</u></b> .....	 9

## **STATEMENT OF COMPONENTS**

**PART A - THE PREAMBLE** does not constitute part of this amendment.

**PART B - THE AMENDMENT** consisting of the following text constitutes Amendment No. 8 to the Township of Warwick Official Plan.

**PART C - APPENDIX** does not constitute part of this amendment. This appendix contains background data, planning considerations and a record of the public involvement associated with this amendment.

**PART A - THE PREAMBLE**

1. **PURPOSE**

This is an amendment for the purpose of adding land use policies to the Official Plan with respect to the erection of Wind Turbines used to convert wind energy into electricity for on-site use or to supply the electric grid.

2. **LOCATION**

Official Plan Amendment No. 8 applies generally to all areas of the Municipality. For this reason, no Key Map is provided.

3. **BASIS**

The 2005 Provincial Policy Statement requires municipalities to provide opportunities for the development of alternative and renewable energy sources and interest has been expressed in the Township for potential wind energy project sites. The Township has had a request for the addition of generic zone regulations applicable to commercial wind turbines and, feeling that this is premature in the absence of appropriate Official Plan policies, the Township has initiated a process of investigating appropriate Official Plan policies and regulations related to wind turbines that would address wind turbines from small residential units up to large commercial units.

Additional information is included in **PART C - THE APPENDIX**

**PART B - THE AMENDMENT**

1. **INTRODUCTION**

All of this part of the document entitled **PART B - THE AMENDMENT** consisting of the following text constitutes Amendment No. 8 to the Official Plan of the Township of Warwick.

2. **DETAILS OF THE AMENDMENT**

The Official Plan for the Township of Warwick is amended as follows:

- a) Part C: MUNICIPAL SERVICES & UTILITIES of the Official Plan is hereby amended by adding the following text as a new Section following Part C, Section 3:

**4 ALTERNATIVE AND RENEWABLE ENERGY SYSTEMS**

**4.1 WIND TURBINE POLICIES**

**4.1.1 General**

1. *Wind Energy Conversion systems, commonly known as Wind Turbines, convert wind energy into electricity that can supply the electrical grid or be stored in batteries for use on site. Wind Turbines can range in size from small units with rotor diameters as small as 1m producing a few watts of electricity for use on site to units supplying all of a residence's or business's electricity needs or to commercial units with tower heights and rotor diameters in excess of 100m supplying electricity to hundreds of homes.*
2. *While wind energy presents opportunities to decrease reliance on fossil fuels and Provincial policy promotes alternative and renewable energy systems, there are also challenges to increase wind energy's reliability and cost-effectiveness. The Township will maintain a neutral position towards wind energy, permitting development but requiring local concerns to be addressed as required by the policies of this Plan.*

***Land use compatibility***

3. *Wind turbines present unique land use compatibility concerns. Due to their prominence, commercial wind turbines have the potential to significantly impact, even define, the character of a community. The Township will permit wind turbine development within the Municipality, but only in appropriate locations and situations. Wind*

*turbine locations and site layouts must recognize the primary nature of existing land uses within the municipality and must limit impacts to agricultural use, sensitive neighbouring uses, visual landscape, the natural environment and potential uses on neighbouring properties.*

***Potential local benefits***

4. *The main benefits the Township anticipates in allowing commercial wind turbines in the Municipality are land rent to farmers from commercial wind turbine companies, off-set electricity costs for turbine owners, potential for community support from commercial turbine companies, business opportunities for locally formed co-ops, and tax base. Local land owners are encouraged to form co-operatives.*

***Turbine operators – community responsibilities***

5. *As a highly visible land use making use of local wind potential, the municipality expects that wind developers will be good corporate citizens and create a net benefit in the community such that the presence of wind turbines will generally be viewed as an asset to the community.*
6. *The municipality requires developers, during planning, construction and long-term maintenance, to use the highest level of cooperation, consideration and communication with the Town, host property owners and neighbours in general proximity to a wind project.*
7. *Turbine operators shall enter into a community commitment agreement with the Township. The Township shall use the received fees pursuant to this agreement for the overall benefit and amenity of community projects and/or services.*
8. *In addition, developers will be required to undertake all infrastructure improvements that are necessitated in connection with a project.*

**4.1.2 Implementation**

1. *The Township will make use of the local Comprehensive Zoning By-law, Site Plan Control and general provisions in the Municipal Act for passing by-laws for the health, well-being and safety of the community.*
2. *Turbine regulations shall be graduated according to turbine size, recognizing not all turbines have the same level of impacts. The regulations shall differentiate between turbines that produce electricity primarily for sale to the electrical grid versus for use on the*

*site, recognizing that use generally determines size. The Township also recognizes the different nature of residential-scale, 'mini-turbines'.*

*Permitted locations*

3. *Turbines producing electricity for use on site will generally be permitted in all areas of the municipality subject to appropriate setbacks. Commercial wind turbines will only be permitted in rural portions of the Municipality at appropriate setbacks from sensitive uses and urban communities.*
4. *Wind turbines will not be permitted in significant natural areas without an Environmental Impact Study and zoning by-law amendment.*

*Locations in urban areas*

5. *Wind turbines below certain size limits will be permitted in urban and residential areas where appropriate setbacks can be met from property lines and neighbouring uses or, by minor variance, where a particular model is shown to operate at acceptable noise levels and no other concerns exist.*
6. *Mini-turbines generally have high rotor speeds and varying braking mechanisms that can result in significant noise levels, pitches and tones. Sufficient tower heights are needed to avoid ineffective and turbulent winds. They will generally be allowed in residential area only by minor variance.*

*Rezoning required – commercial turbines*

7. *There are still possible unknowns or unforeseen issues associated with wind turbines. As a way of providing a closer level of scrutiny, proposed commercial wind turbine projects over a certain size limit in terms of number of turbines or 'name plate capacity' will be required to obtain site specific zoning amendments to an "Agricultural Zone Exception". Where there is an Environmental Assessment process, zoning amendments shall not be passed until the municipality is satisfied it has progressed to a point that concerns relevant to rezoning have been satisfied. Holding provisions may also be utilized where outstanding issues are minor.*

*Setbacks – amenity (e.g. noise)*

8. *Setbacks from sensitive uses including residential, institutional, and active recreation uses shall be based primarily on distances that are necessary for noise produced by a turbine to dissipate to acceptable levels. It is believed that at the setbacks suitable for addressing noise,*

*other issues associated with wind turbines will generally have been addressed.*

9. *Setbacks shall be included in the Zoning By-law that are believed will be appropriate in the majority of situations. Recognizing the variation in models and technology however, the responsibility shall lie with the turbine owner/operator prior to installation to ensure a turbine will not produce excessive noise emissions. Unless an Environmental Assessment addressing noise was completed prior to installation, it shall be the responsibility of the turbine operator to cease operation of a turbine deemed a noise nuisance until compliance with Ministry of the Environment guidelines is displayed. Noise assessments must take into consideration unique tones and patterns that may be heard against background noise.*
10. *Setbacks are required from livestock facilities. Some effects of wind turbines are poorly studied because they do not seem to be issues at the types of setbacks typically required from dwellings. Impacts on human health at lesser distances also may impact livestock.*

*Setbacks – structural integrity*

11. *Setbacks from road allowances, lot lines, buildings on separate lots, and public utilities shall take into account potential tower collapse. Where consequences of or potential for tower collapse is less (e.g. an engineered tower and foundation) or where abutting landowners indicate consent to the Municipality, reduced setbacks may be considered but a turbine must generally be self-contained to a parcel, not overhanging a property line.*

*Setbacks – reciprocity*

12. *The setback requirements that wind turbines must meet from existing sensitive uses shall generally apply reciprocally when other uses wish to locate in proximity to existing wind turbines. Exceptions shall apply to livestock operations and expansions of urban areas, recognizing a priority of land uses.*

*Meteorological towers*

13. *Meteorological towers shall be placed in areas where a wind turbine could meet setback requirements or where tower collapse can occur within property lines.*

#### **4.1.3 Individual Project Assessment**

*Site plan control*

1. *Wind turbines over a certain height or rotor size will be subject to site plan control. Smaller turbines and projects will be reviewed less rigorously. Where municipal concerns are addressed through an Environmental Assessment process, the site plan process and agreement may be simplified.*
2. *Unless the turbine operator is the land owner, the Township will enter into site plan agreements with and obtain any facilities, securities or obligations it may require from the wind turbine operator. The Township will not enter into any agreement with a turbine company without addressing the concerns of the land owner and having the land owner approve of the final agreement.*

*Derelict towers*

3. *Site plan agreements shall include an environmental management plan including provisions in particular related to derelict towers, site decommissioning, rehabilitation and the provision of such securities as the Township requires from turbine operators for these purposes. The Township shall develop standard site plan agreement requirements for the provision of such securities.*

*Wind project assessment considerations*

4. *In assessing a wind turbine project as part of either a zoning amendment or a site plan agreement, turbine operators and the Township shall take into consideration:*
  - a) *Potential noise from turbines and also humming of any substations or power lines.*
  - b) *Impacts to agriculture including drainage, soil conservation and productivity, number of acres taken out of production, and field fragmentation.*
  - c) *Visual impact including lighting, colouring, blade glint, shadow flicker, overshadowing and impacts on natural landscapes and general visual amenity.*
  - d) *Location of utility lines and any associated utility buildings, substations, etc, and landscaping and screening of same.*
  - e) *Impacts to the natural environment including but not limited to migration routes, significant natural areas, new waterway crossings, geotechnical concerns.*
  - f) *Whether utilities should be buried or overhead, and impacts on watercourse crossings of utility lines and access roads.*
  - g) *Impacts to cultural and built heritage, archeological resources and recreational areas.*

- h) *Impacts to local infrastructure through delivery, construction and operation of the project.*
  - i) *Site safety including falling ice, tower collapse, fencing, guy wires markings and climbing prevention.*
  - j) *Aircraft safety and impacts to private air strips.*
  - k) *Potential electromagnetic interference to communications infrastructure.*
  - l) *Other issues that may become apparent with maturation of the wind energy industry.*
5. *Where the minimum setbacks in the Zoning By-law do not address all concerns, as identified in an Environmental Assessment for example, greater setbacks shall be incorporated into the site plan agreement.*
6. *In assessing requests for zoning amendments to establish commercial turbines, the municipality may consider giving priority to projects with better wind resources and higher margins of project feasibility.*

*Required submissions*

7. *The municipality may require a turbine operator seeking site plan approval or rezoning for a commercial project to determine or provide the following:*
- a) *Copies of any documentation or background studies associated with any Environmental Assessment or Environmental Screening process.*
  - b) *Such background reports as may be needed to determine potential impacts and possible mitigation measures associated with any of the concerns listed in Section 4, including but not limited to environmental evaluations, geotechnical studies, visual impact assessments, environmental impact studies, archeological assessments, environmental screening report, and noise studies.*
  - c) *An environmental management plan including, in particular, site decommissioning and rehabilitation plans, and such securities and the Township requires from turbine operators for this purpose.*
  - d) *An emergency response plan, construction plan, icing protocol, dispute resolution protocol, and roads agreement; all to the Townships satisfaction.*

- e) *Specifications of turbines (i.e. make, model, rated output, hub height, rotor diameter, foundation details, noise emission certification, etc.) and ancillary infrastructure.*
- f) *Details regarding electric infrastructure including location of utility lines within property, extent of upgrades and/or confirmation of grid capacity.*
- g) *Site layout including tower placement, pads for erecting tower, servicing, ground level lighting, fencing, landscaping, storage, access roads, easements, site grading and details regarding same.*
- h) *Proposed duration of project.*
- i) *The extent of lands where the developer has land options.*
- j) *Locations, setbacks, use and heights of all structures, private airstrips and communication and other towers within 500m of the project site.*
- k) *Location of natural heritage features including woodlots, surface water, wetlands, and migratory routes.*
- l) *For turbines with a total height exceeding 45m, Transport Canada's requirements for lighting, colour and marking prior to turbine erection.*
- m) *Conservation Authority approval of any culverts, structures, utilities, placing or removal of fill within areas designated as "Hazard and Environmental Protection".*

***Aesthetic Guidelines***

- 8. *The following policies shall be used as general aesthetic guidelines for larger turbines subject to site plan control, and also to improve public familiarity with wind energy:*
  - a) *Wind turbine proponents shall work to use colours, lighting and tower design that soften visual impact;*
  - b) *Where lighting or colouring that the Township considers unduly adverse to the visual amenity of the community is required as aircraft safety markings, a tower shall be prohibited or limited in height;*
  - c) *Open arrays are required rather than densely packed developments;*
  - d) *Wind turbines in a particular area shall all have similar rotor diameters, have similar blade, tower and nacelle shapes, have*

*the same number of blades, rotate in the same direction and be either all up-wind or all-down-wind models;*

- e) Tower heights in an area shall be uniform unless staggered intentionally for aesthetic reasons;*
- f) Locations for public access and information signs, kiosks or visitor’s centres should be provided and fencing and warning signs should be limited;*
- g) Advertising shall be prohibited on turbine towers excepting subtle manufacturer’s logos;*
- h) Access roads should be kept as inconspicuous as possible and/or reduced in standard following construction;*
- i) Facilities on the ground should use motion sensor lighting;*
- j) On-site power lines should generally be buried;*
- k) Attention should be given to the building materials and design used for accessory buildings where they are not located off-site or inside turbines;*
- l) In order to have turbines spinning as often as possible, turbines with lower cut-in wind speeds are encouraged and site plan agreements shall contain provisions that encourage minimized down-time; and*
- m) Site plan agreements should provide for keeping turbines and surrounding grounds clean.*

3. **IMPLEMENTATION AND INTERPRETATION**

The implementation and interpretation of this amendment shall be in accordance with the policies of the Official Plan of the Township of Warwick.

**PART C - THE APPENDIX**

The following appendix does not constitute part of Amendment No. 8, but is included as information supporting the amendment.

**APPENDIX 1** .....Minutes of Public Meetings  
**APPENDIX 2** ..... Planning Reports

**APPENDIX 1.**

**Minutes of Public Meeting**

**APPENDIX 2.**

**Planning Report**