



Staff Report

Report Title: Resolution Multi Municipal Wind Turbine Working Group – Wind Turbines

Prepared By: Emily Dance, Clerk

Department: Clerk

Date: Jun. 6, 2022

Report Number: CLK-2022-06-53
Turbine

File Number: C11 – Wind

Attachments: April 22, 202 Correspondence MMWTWG

Recommendation:

THAT the Township of Huron-Kinloss Committee of the Whole hereby approves Report No. CLK-2022-06-53 prepared by Emily Dance AND directs staff to make a request to the County of Bruce Planning Department to review the resolution of the MMWTWG and provide a planning policy review on associated impacts to current land use policies and regulations.

Background:

On April 22, 2022, the Multi-Municipal Wind Turbine Working Group (MMWTWG) forwarded a copy of a resolution that was passed at their April 14, 2022, meeting recommending that municipalities adopt the following setbacks from wind turbines:

1. 2000 meters from any wind turbine and any noise receptor, including homes, schools, places of worship, and locations where citizens go for relaxation, such as parks and community centres.
2. 1200 meters from any wind turbine and the lot line of any non-participating citizen, or a place where a citizen can access, such as public roadways, or waterways.

The Township of Huron-Kinloss has a [Wind Turbine Development Policy](#) in place that outlines the general provisions for Wind Generating Systems (WGS) for the Township of Huron-Kinloss.

The Township of Huron-Kinloss has established the following General Provisions for Wind Generation Systems:

Site Provisions:

	Feature	Provision
1	'CWGS' Minimum Setback to: Urban Area Boundary as defined in the Township of Huron Kinloss Official Plan	2000 meters (6600 ft.)
2	'WGS' minimum setback to: Residential uses or structures designated for human habitation.	1000 meters (3300 ft.)(1)
3	'WGS' Minimum setback to: County or Provincial road or highway	The greater of the manufacturer recommended setbacks or 1.25 times the 'Total WGS Height' from the right-of-way line
4	'WGS' Minimum setback to: Front Yard or Exterior Side Yard	The greater of the manufacturer recommended setbacks or 'Total WGS Height' minus the untraveled portion of the municipal right-of-way
5	'WGS' Minimum setback to: Interior Side Yard or Rear Yard of Non-participating Properties	The greater of the manufacturer recommended setbacks or 1.0 times the 'Total WGS Height'
6	'WGS' Minimum setback to: Interior Side Yard or Rear Yard of participating Properties	Length of turbine blade
7	Minimum setback for 'Wind Generation System Accessory Facilities' (buildings and structures only)	10 meters (33 ft.) from all lot lines or in accordance with the setback provisions for buildings/structures adjacent to a Provincial or County road, whichever is greater
8	Maximum 'Total WGS Height'	120.0 meters (393.7 ft.)
9	Signs/Advertising/Logos	No advertising sign or logo on any 'WGS'; no more than 2 project identification signs not to exceed 1.49 square meters (16 sq.ft.) in area or 2.44 meters (8 ft.) in height.

Note 1. Setback to residential structures may be greater if the structure lies within the line of prevailing winds or multiple 'WGS'. Dampening software may be required on 'WGS' to mitigate noise issues.

Note 2. 'Total WGS Height' is measured from average grade to the uppermost extension of any blade, or maximum height reached by any part of the turbine whichever is greater.

Discussion:

Under the Environmental Protection Act, [Ontario Regulation 359/09](#) renewable energy approvals in the Province of Ontario, proponents need approval from Municipal Councils for large wind, solar or bio-energy projects.

Regulation 359/09 outlines criteria for renewable energy approval, which includes requiring the proponents to submit written confirmation from local municipal authorities indicating that the proposed use of land at the project location is not prohibited by a Zoning By-law or Zoning order under the Planning Act.

Only Zoning By-laws are considered by the new regulation, but Zoning By-laws need to be consistent with Official Plans.

Planning provisions cannot prohibit wind turbines, only regulate their location within the municipality. Renewable energy undertakings would be subject to municipal

planning instruments, in addition to any environmental and other approvals that may be required.

Provincial Policy Statement

Under Section 3(5) of the Planning Act, the Municipality “shall be consistent with” matters of provincial interest as set out in the Provincial Policy Statements, 2020 (PPS).

Section 1.6.11.1 sets out that planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs.

Renewable energy source means an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy and tidal forces.

Renewable energy system means a system that generates electricity, heat and/or cooling from a renewable energy source.

County of Bruce Official Plan

The County Official Plan provides for local municipalities to rely on the County’s planning policies or to develop their own more detailed policies for all or parts of their community.

The Township of Huron-Kinloss has its own local municipal official plan for Primary (Lucknow and Ripley) and Secondary (Lakeshore) Urban Communities and Hamlet Communities (Amberley, Holyrood, Kinloss, Kinlough, Pine River and Whitechurch) of Huron-Kinloss.

However, to avoid duplication uses plans of the County Official Plan pertaining to the agricultural lands and rural areas outside of the Township’s settlement areas are under the County of Bruce Official Plan.

Township of Huron-Kinloss Zoning By-Law

In the current Zoning By-Law, there are not regulations that apply to renewable and alternative energy systems and facilities.

Even with a Wind Turbine Development Policy in place, A zoning amendment would be required to regulate setbacks and would need to follow the policy requirements of the County of Bruce Official Plan and the Provincial Policy Statement.

A zoning By-Law amendment would include statutory public meetings and appeal rights to the Ontario Land Tribunal.

Staff is recommending a request be made to the County of Bruce Planning Department to review the resolution of the MMWTWG and provide a planning policy review on the associated impacts to current land use policies and regulations.

Financial Impacts:

There are no financial impacts associated to this report.

Strategic Alignment / Link:

We are an accessible community by being open and transparent.

Respectfully Submitted By:

Emily Dance, Clerk

Approved By:

Mary Rose Walden, Chief Administrative Officer

MULTI-MUNICIPAL WIND TURBINE WORKING GROUP

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April 22, 2022

Dear Mayor and Members of Council,

The mandate of the Multi Municipal Working Group (MMWTWG) is to share, discuss and advocate best practices and other means to address mutual concerns regarding proposals to locate and install industrial/commercial wind generation facilities to all the relevant Government Ministries and Agencies.

At the April 14, 2022 meeting of the Multi-Municipal Wind Turbine Working Group passed the following resolution:

Agenda Number: 7.2.4

Resolution No. MMWTWG-2022-17

Title: Setback Recommendation

Date: Thursday, April 14, 2022

Moved by: Bill Palmer - Citizen - Municipality of Arran-Elderslie

Seconded by: Bob Purcell - Mayor - Municipality of Dutton Dunwich

To address concerns related to noise and the public safety of citizens, the Multi Municipal Wind Turbine Working Group recommends that the following setbacks from wind turbines should be adopted in each municipality:

1. 2000 metres from any wind turbine and any noise receptor, including homes, schools, places of worship, and locations where citizens go for relaxation, such as parks and community centres.
2. 1200 metres from any wind turbine and the lot line of any non-participating citizen, or a place where a citizen can access, such as public roadways, or waterways.

Further, that the Recording Secretary is empowered to prepare a letter to all municipalities in Ontario and the responsible Ministries, (Ministry of the Environment Conservation and Parks, and Ministry of Municipal Affairs) to be signed by the chair of the MMWTWG for immediate release.

CARRIED

Through changes made to the Planning Act in 2019, the province returned powers to municipalities to ensure that they have the final say on energy projects in their community. Proponents of new projects need to confirm that their project is permitted by the municipalities' zoning bylaws. Now that there are reports that sites are being sought for new wind turbines, it is timely that municipalities review the provisions in their zoning bylaws and update them as appropriate.

Key elements in zoning bylaws are setbacks between activities. While experience with the existing wind turbine projects in Ontario and changes in other jurisdictions indicate that the current provincial setbacks are inadequate to protect health of nearby residents. Municipalities are free to establish their own setbacks used in local bylaws. It is in this context that the MMWTWG is providing these recommendations to your municipality.

Attached is a summary of information related to setbacks. It includes a review of different setbacks based on a review by the Polish Public Institute of Health as well as information on setbacks used in other jurisdictions. The 2000 m setback from noise receptors is designed to provide protection from audible noise as well as low frequency noise and infrasound which travels greater distances that could occur from multiple turbines permitted by the current setback of 550 metres. Similarly, although 1200 metres may be a larger distance than we have observed significant pieces of blades travel from the towers, it provides a buffer to give protection from fire, or shadow flicker, that can cause problems further than blade pieces fall.

The Multi-Municipal Wind Turbine Working Group invites the participation of all municipalities across Ontario. To obtain details regarding the group's mandates, Terms of Reference and how to become a Member, please reach out to our Recording Secretary, Julie Hamilton at deputyclerk@arran-elderslie.ca. Size in numbers provides a louder voice to be heard!

Warmest Regards,
On behalf of the Chair, Tom Allwood



Julie Hamilton, Recording Secretary
Deputy Clerk
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c. Honourable David Piccini, Minister of Environment, Conservation and Parks, minister.mecp@ontario.ca, Honourable Steve Clark, Minister of Municipal Affairs and Housing, minister.mah@ontario.ca

Encl.

Setback Information

Current Ontario Rules – Regulation 359/09

Receptors	550 metres	Audible noise only based on 40 dBA
Property Lines	Blade length plus 10 metres	Typically 60 metres

Polish Public Health Institute Review

Audible Noise	.5 to .7 km	No adjustments for pulsing/tonal quality
Total Noise	1.0 to 3 km	Includes low frequency noise & pulsing/tonal adjustments
Shadow Flicker	1.2 to 2.1 km	Depends on height of turbine
Ice Throw	.5 to .8 km	Fragments of ice thrown from blades
Turbine Failure	.5 to 1.4 km	Potential distance for blade fragments

Examples of Setbacks

Jurisdiction	Set-back	Comments
Dutton-Dunwich, ON	2,000 M	To receptors
Mason County, Kentucky	1,600 M	To property line
Caratunk County, Maine	2,414 M	To property line
Wyoming	1,110 M	5.5 X height to property line
Bavaria, Germany	2,073 M	10 X hub height plus blade length
Sachsen, Germany	1,380 M	10 X hub height
Northern Ireland	1,386 M	10 X rotor diameter
Poland	2,073 M	10 X hub height plus blade length