

**Multi Municipal Wind Turbine Working Group
MINUTES**

**MMWTWG-2023-02
Thursday, March 9, 2023, 7:00 p.m.
Virtually via Microsoft Teams**

Members Present: Mark Davis - Municipality of Arran-Elderslie - Citizen
Appointee
Brian Dudgeon - Municipality of Arran-Elderslie
Ryan Nickason - Municipality of Arran-Elderslie
Scott Mackey - Township of Chatsworth
Terry McKay - Township of Chatsworth
Paul McQueen - Municipality of Grey Highlands
Tom Allwood - Municipality of Grey Highlands
Dan Wickens - Municipality of Grey Highlands
Todd Dowd - Municipality of Northern Bruce Peninsula

Others Present: Julie Hamilton - Recording Secretary

1. Meeting Details

2. Call to Order

The Chair called the meeting to order at 7:00 pm. A quorum was present.

3. Adoption of Agenda

The Working Group passed the following resolution:

MMWTWG-2023-09

Moved by: Scott Mackey - Township of
Chatsworth

Seconded by: Ryan Nickason -
Municipality of Arran-
Elderslie

Be It Resolved that the Multi-Municipal Wind Turbine Working Group hereby adopts the agenda of the Thursday, March 9, 2023 as distributed by the Recording Secretary.

Carried

4. Disclosures of Pecuniary Interest and General Nature Thereof

There were no disclosures of pecuniary interest or general nature thereof declared at this time.

5. Minutes of Previous Meetings

5.1 January 12, 2023 MMWTWG Minutes

The Working Group passed the following resolution:

MMWTWG-2023-10

Moved by: Dan Wickens - Municipality of Grey Highlands

Seconded by: Mark Davis - Municipality of Arran-Elderslie - Citizen Appointee

Be It Resolved that the Multi-Municipal Wind Turbine Working Group hereby approves the minutes of the Thursday, January 12, 2023 meeting as presented by the Recording Secretary.

Carried

6. Business Arising from the Minutes

6.1 Revisions to the Terms of Reference

The Working Group discussed the revised Terms of Reference as presented by the Recorded Secretary based on comments received from Members of the Working Group. Amendments were made during the discussion. These amendments will be finalized by the Recording Secretary and forwarded to Member Municipalities for approval by their respective Councils.

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-11

Moved by: Dan Wickens - Municipality of Grey Highlands

Seconded by: Ryan Nickason - Municipality of Arran-Elderslie

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby approves the Terms of reference as amended and

direct the Recording Secretary to forward a copy to each member Municipality for approval by their respective Councils.

Carried

6.2 Minister of Finance - Response to Wind Turbine Taxation Correspondence

The Members sought clarification on the taxation process referred to in the letter. The structure is assessed by MPAC based on the megawatts. Municipalities then apply their industrial tax rate to that assessment. The generation equipment such as turbines and generation equipment are exempt from taxation, similar to the equipment installed in other manufacturing facilities.

The Working Group will continue to pursue having MPP Rick Byers attend as a guest at a future meeting.

The Working Group passed the following resolution:

MMWTWG-2023-12

Moved by: Scott Mackey - Township of Chatsworth

Seconded by: Mark Davis - Municipality of Arran-Elderslie - Citizen Appointee

Be It resolved that the Multi Municipal Wind Turbine Working Group hereby accepts the correspondence from the Minister of Finance information purposes.

Carried

6.3 Wind Turbine Failures Letter

The letter highlights concerns associated with the catastrophic failures that have been seen with wind turbine projects. The Working Group discussed the efforts that had been made to communicate these concerns to other Municipalities.

The Chair and Recording Secretary will facilitate a follow up to the correspondence to address the recommendations raised by the Working Group in the original letter.

6.4 FOI Requests

No further information has been received on these requests to date.

6.5 Bill Palmer - Technical Issues related to Energy Storage

Mr. Palmer made a presentation to the Working Group regarding the technical issues associated with Battery Energy Storage Facilities.

He provided the an overview of the Ontario's energy supply and demand sources and what the IESO is projecting will be the demand needs by 2050.

Mr. Palmer then addressed battery storage systems (BESS) specifically.

Lithium Ion comprise approximately 90% of industrial/electrical supply storage batteries. Li-ion generally good for fast response, up to 4-hour discharge time however, barely adequate for shifting night supply to daytime usage of energy, a poor choice for storage needing days or weeks vs hours of storage, due to Li-ion self-discharge over time. There are several other alternatives under development.

Fire hazards are a main concern with the installations and the emission of toxic fumes and gases into the air is a potential health hazard. Additionally, the types of chemicals used in the batteries could combust and create explosions. Thermal runaway can also occur when the heat generated within a battery exceeds the amount of heat that is dissipated to its surroundings. If the cause of excessive heat creation is not remedied, the condition will worsen, creating a potentially unstoppable fire.

Since these units are relatively new, first responders typically have limited experience with combating the battery fires, which behave much differently than typical fires.

Mr. Palmer briefly touched on hydrogen.

90% of the hydrogen produced today is from fossil fuels. To produce "green hydrogen" from renewable electricity from solar or wind will be "cost prohibitive". Hydrogen for vehicle fuel cells is stored under very high pressure of about 10,000 PSI. It needs heavy cylinders, with carbon fibre reinforced barriers. Hydrogen under pressure tends to react with metal, forming brittle hydrides, degrading the storage vessel. Fuel cells to make electricity from hydrogen for vehicle propulsion need

platinum or iridium, which are neither are cheap nor plentiful. Adding hydrogen above about 7% in concentration to natural gas supply network requires modifying all combustion equipment (furnaces, etc.) connected to the gas line for safety reasons. Batteries can typically reuse between 80–90% of the chemical energy stored, but fuel cells generally transform only 40% to 60% of their energy to produce electrical power. Overall, “Green Hydrogen” supply/usage efficiency is about 30%. 70% of the energy is wasted.

The Working Group thanked Mr. Palmer for his presentation.

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-13

Moved by: Dan Wickens - Municipality of Grey Highlands

Seconded by: Scott Mackey - Township of Chatsworth

Be It Resolved that the Multi-Municipal Wind Turbine Working Group hereby receives the presentation made by Mr. Palmer regarding the technical issues associated with energy storage facilities for information purposes and that the presentation be forwarded to the Member Municipalities recommending that it be provided to their respective Fire Chiefs and comments provided back to the Working Group.

Carried

7. Delegations/Presentations

7.1 Ruby Mekker - Wind Turbines defined as a Health Hazard

Ms. Mekker spoke at a previous meeting regarding her efforts to clarify if industrial wind turbines are, or should be, recognized as health hazards.

She felt that the Working Group had not understood her request at that time. She provided a brief overview of her concerns for any new members. She requested that the Working Group consider the draft letter she had prepared be distributed to the Government of Ontario.

The Working Group thanked Ms. Mekker for her presentation and recognizes the health concerns and hazards associated with wind turbines.

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-14

Moved by: Mark Davis - Municipality
of Arran-Elderslie - Citizen
Appointee

Seconded by: Scott Mackey - Township of
Chatsworth

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby agrees to seek clarification/confirmation by way of a letter to the Ministry of Health about whether audible wind turbine noise of industrial wind turbines audible wind turbine noise at the levels permitted by the Government of Ontario are, or should be considered, a "health hazard" as defined by the Health Protection and Promotion Act of Ontario, something "that has or that is likely to have an adverse effect on the health of any person."

Carried

7.2 Warren Howard - WCO Battery System Storage Report

Mr. Howard provided a presentation on the Wind Concerns Ontario findings on the Battery Energy Storage Systems.

The IESO proposal only requires that proposals meet "good engineering and operating practices". They are not required to submit to design or other protection features.

Ontario Regulation 359/09 O. Reg. 359/09: Renewable Energy Approvals made under the Environmental Assessment Act does not speak to these types of regulations.

In his research, he did note a couple of standards that appear to be relevant.

National Fire Protection Association

- Standard 855 – 2020; Revised 2023

Underwriters Laboratory

- ANSI/CA/UL9540 – April 2021
- ANSI/CA/UL9540A - November 2019

Hydro One has some setbacks in place due to the damage that prolonged heat and smoke would do to their equipment however, there are no other known setbacks. The technology is too new to be covered in municipal zoning bylaws. Noise emissions could also be an issue based on municipal noise bylaw regulations.

Some items that were noted to consider regarding these projects is the management of toxic and explosive gases, dry sprinkler systems, access to large quantities of water, separation of modules to allow fire equipment access and acoustic barriers.

Also, local emergency support should have specialized training to be able to properly handle the scale of the potential fire hazards associated with these installations as well as the toxic fumes and run-off that could occur.

Mr. Howard's presentation made the following recommendations which are also covered in the Wind Concerns Ontario report, Assessment of Community Risks.

- Add Battery Storage to Regulation 359/09
- Establish minimum setbacks from all activities
- Require design certification by an accredited body (UL9540A) and meets all standards (i.e. UL9540, and NFPA 855)
- Monitoring and fire containment systems linked to local emergency services
- Assessment of all noise emissions with abatement as required
- Emergency plan agreed with local authorities including specifications on support required
- Final package presented to municipal council for approval before permits issued.

The Working Group thanked Mr. Warren for his presentation.

This presentation highlights the concerns that were raised in Mr. Palmer's presentations regarding the extreme fire hazards that are potentially present with these installations.

Several questions have been raised such as setback requirements, evacuation protocols, emergency preparedness plans especially with some of these installations being in the vicinity of a settlement area.

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-15

Moved by: Scott Mackey - Township of Chatsworth

Seconded by: Dan Wickens - Municipality of Grey Highlands

Be It resolved that the Multi Municipal Wind Turbine Working Group hereby receives the presentation made by Mr. Howard regarding the WCO Battery Storage Systems Report and that it be forwarded to Member Municipalities along with Mr. Palmer's presentation and that a letter be forwarded to the Office of the Fire Marshall regarding fire suppression measures and emergency preparedness plans related to battery storage facilities.

Carried

8. Correspondence

8.1 Requiring Action

8.1.1 Approval of 2023 Meeting Schedule

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-16

Moved by: Dan Wickens - Municipality of Grey Highlands

Seconded by: Todd Dowd - Municipality of Northern Bruce Peninsula

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby adopts the 2023 meeting schedule as presented.

Carried

8.1.2 2022 Year End Financial Statement

The Working Group passed the following resolution:

MMWTWG-2023-17

Moved by: Terry Mckay - Township of Chatsworth

Seconded by: Todd Dowd - Municipality of Northern Bruce Peninsula

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby receives the 2022 Year End Financial Statement for information purposes.

Carried

8.1.3 2023 Membership Fee

The fee is currently set at \$400.00 per Member Municipality. The fee will remain the same for 2023.

Subsequent to further discussion, the Working Group passed the following resolution:

MMWTWG-2023-18

Moved by: Dan Wickens - Municipality of Grey Highlands

Seconded by: Mark Davis - Municipality of Arran-Elderslie - Citizen Appointee

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby approves that the 2023 Membership Fee remain to be set at \$400.00 per Member Municipality.

Carried

8.1.4 Approval of Recording Secretary Invoice

The Working Group passed the following resolution:

MMWTWG-2023-19

Moved by: Ryan Nickason -
Municipality of Arran-
Elderslie

Seconded by: Terry Mckay - Township of
Chatsworth

Be It Resolved that the Multi Municipal Wind Turbine Working Group hereby approves payment of the invoice for the Recording Secretary Services for January and February, 2023.

Carried

8.2 For Information

None.

9. Members Updates

Member Mackey noted that a company was speaking to property owners in the area looking for properties for potential wind turbine projects. He did not have any specific details but received the information from a concerned citizen.

Chair Allwood noted that Stewart Halliday was appointed as the Citizen Appointee for Grey Highlands and would be in attendance in the future.

10. New Business

The Membership suggested reaching out to the municipalities with the new Terms of Reference to try to re-engage other municipalities with the new mandates, especially in light of the battery storage facilities and their associated risks.

Once the new Terms of Reference have been approved by the Member Municipalities, a letter will be drafted to be sent out to Ontario Municipalities.

11. Closed Session (if required)

There was no closed session required.

12. Resolution to Reconvene in Open Session

13. Adoption of Recommendations Arising from Closed Session (If Any)

Direction was given to staff in Closed Session for items

14. Adoption of Closed Session Minutes

15. Confirmation of Next Meeting

The next meeting will be held May 11, 2023 at 7pm via Teams.

16. Adjournment

The Working Group passed the following resolution:

Moved by: Mark Davis - Municipality
of Arran-Elderslie - Citizen
Appointee

Seconded by: Scott Mackey - Township of
Chatsworth

Be it Resolved that the meeting of the Multi-Municipal Wind Turbine Working Group is hereby adjourned at 2:43 p.m.

Carried

Tom Allwood, Chair

Julie Hamilton, Recording
Secretary