



2009.07.14

Friends and Colleagues of XAG Energy and the Wind Energy Industry in Ontario

Dear Fellow Wind Energy Supporter:

XAG Energy would like to congratulate the Minister of Energy and Infrastructure, The Honorable George Smitherman, on having successfully seen the Green Energy Act through to Royal Assent on the 14th of May, 2009. It is a world-class piece of legislation and we are honored to be part of such a progressive period in provincial politics. As you know, our group, XAG Energy, shares your commitment to bringing renewable energy opportunities and related services here to Southwestern Ontario. In this capacity, we have worked diligently to position ourselves as a credible resource for elected officials, their constituents, XAG Energy network companies, media outlets and, of course, original equipment manufacturers and energy generation facility developers.

Early in June, we were contacted by various wind farm developers and their related suppliers to provide our collective voice to comment on certain elements of the "Proposed Content for the Renewable Energy Approval Regulation under the Environmental Protection Act" and perhaps, more importantly, to encourage our involvement and response to the proposed change in setbacks (distances) for wind turbines and transformer substations in proposed Ontario wind farms.

These responses must be made during a comment period that began on the 9th of June, 2009 and closes on the 24th of July, 2009 and is being administered by the Ministry of the Environment (MOE).

As stated above, we have worked, since our formation, to be a credible resource and therefore have done a great deal of research in preparing the attached backgrounder and XAG Energy position statement. We would certainly not provide you with anything short of a well-researched document. Further, XAG Energy is founded on the "win-win" premise for business success and therefore our organization would not blindly support any initiative or position purely for financial or personal gain. That being said, we look forward to your review of the attached and respectfully request that you assist us in encouraging the Minister of the Environment, The Honourable John Gerretsen, to amend the proposed regulation with regard to the various setbacks for industrial size wind turbines.

We believe these amendments on top of the more streamlined process the Ontario government has so diligently worked towards will indeed fully develop the "win-win" that we are all attempting to foster by matching the needs of wind farm developers and the constituents of the Province of Ontario.

As part of our research process, Dave Woodall, Cy McGrath and I attended the 'Open House' put on by the Ministry of Environment in Chatham with regard to the "Proposed Content for the Renewable Energy Approval Regulation under the Environmental Protection Act".

The gentleman explaining the proposed regulations at the Open House repeated on numerous occasions that the proposed setbacks were created with the health and well-being of the Ontario populace being their only goal. He also stated that, once they had established the proposed setbacks, they then erred on the conservative side when finalizing the setback requirements. By the MoE rep's own admission at the public meeting, these numbers are NOT based on scientific fact; rather they are based on the opinions of those involved in preparing the regulations.

Certainly, the well-being of the citizens of Ontario is paramount. Great minds have always agreed that, in anything new, there is an element of risk. The development of the automobile and airplane brought risk - as did many of the devices that make our lives more enjoyable. And they certainly didn't happen by being 'conservative'. Were that the case, we would all be traveling in buggies pulled by horses and polio would be claiming thousands of lives every year. For a more focused comparison, one need only look to nuclear power which has had its fair share of critics and yet is safely in use around the world today.

The issue at hand is that the proposed wind farm setback regulations reduce significantly the number of eligible turbine locations and will eliminate many of the planned projects completely - they will, quite simply, never happen because the reduced numbers of turbines result in them no longer being financially viable. Not only are the planned projects in danger of not happening, but the proposed legislation, in and of itself, has created cause for concern in the investment/facility developer community. Of course these international entities will locate their new facilities and invest their time, effort and money in the most receptive communities. With these proposed arbitrary setback numbers, Ontario will definitely be seen as less than receptive - particularly in comparison to many of our neighbours in the US Midwest.

For example, fifty-five generators are planned for a wind farm in Raleigh Township. We are advised that the new rules would eliminate more than half of these units. Similarly, if applied in Harrow, the number of turbines would be reduced from the twenty-four proposed to less than half. This is typical of most, if not all, of the planned wind farms across the province.

The developing wind energy industry, along with the long and short term jobs, supplies and services and the ongoing tax base revenues that you so deservedly supported with the new Green Energy Act, could be dramatically reduced if not completely eliminated by the proposed new regulations. Wind farms cannot be financially viable if turbines must be built in ones and twos with large distances between them or long distances from the existing electrical supply system.

On behalf of the 150+ associates of XAG Energy and the more than 10,000 jobs they represent, we want to see the full potential of alternative energy developed.

We hope that you will continue your efforts to support Ontario companies and their efforts to diversify and remain at the forefront of world manufacturing expertise and that you will find the attached information useful in your discussions. Please feel free to call us at 519-737-1010 in Windsor and we will be pleased to arrange to meet with you and/or provide more detailed information to you or your staff.

We encourage everyone to respond to the MOE request for comment and invite you to use the information contained within our position statement to form your response.

All comments on this proposal must be directed to:

Marcia Wallace
Manager
Ministry of the Environment
Environmental Programs Division
Program Planning and Implementation Branch
55 St. Clair Avenue West
Floor 7
Toronto Ontario
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Phone: (416) 327-2079
Fax: (416) 327-9823

Or you may submit them online at:

<http://www.ebr.gov.on.ca/ERS-WEB-External/searchComment.do?actionType=add¬iceId=MTA2NDQ5&statusId=MTU5NjQ1¬iceHeaderIdString=MTA2NDQ5>

Yours very truly,

XAG ENERGY

Ed Bernard, President



BACKGROUNDER – XAG ENERGY TOPICAL RESEARCH- “Proposed Content for the Renewable Energy Approval Regulation under the Environmental Protection Act”

The subject document covers the proposed new wind turbine setback requirements. The Act appropriately simplifies the application process immensely and allows a project to come to fruition much more quickly.

To understand the ramifications of the new regulations, one must understand what they are currently and then what is proposed:

a) CURRENT RECEPTOR SETBACKS

The ‘setback’ distance from a receptor (a dwelling or building occupied by humans) currently varies based on the noise level created by the wind generators as measured at the centre of the receptor. The current maximum noise threshold varies from 40 dbA to 53 dbA and is based on the MoE’s Noise Guidelines for Wind Farms (October 2008). The result is that setback distances can and do vary from location to location depending on the type, size, location, etc. of the turbines.

PROPOSED RECEPTOR SETBACKS

The proposed setbacks from a receptor are spelled out in a table that is to be applied across the board with no regard to other site specific conditions. Whereas, existing setbacks are not uncommon in the 300 to 400 meter range and are based on sound levels at the receptor, the proposed regulations call for a minimum of 550 meters ranging up to 1,500 meters (1.5 km.) and possibly more. The 40 dbA noise level criteria still exists, but is automatically overridden by the minimum 550 meter (and up) requirement.

b) CURRENT ROAD, RAILWAYS AND PROPERTY LINES

The setback distance from a road or an adjacent non-participating property line is currently the length of one blade which, for most of the generators currently in place, is about 30 meters.

PROPOSED ROAD, RAILWAYS AND PROPERTY LINES

The proposed setback is 125 meters. The result is that generators are being pushed toward the centre of the farms on which they are located and, in many cases, closer to a receptor.

c) CURRENT TRANSFORMER SUBSTATION SETBACKS

In accordance with MOE NPC-233 Noise Guideline.

PROPOSED TRANSFORMER SUBSTATION SETBACKS

The proposed setbacks from a receptor are now proposed to be 1,000 metres if there is no noise abatement or 500 metres if there is an acoustic barrier. The

document then goes on to state *"It is also proposed that if the wind turbine project proponent should be interested in obtaining a lower setback than indicated for transformer substations it would have the option to complete a site-specific noise study consistent with the Ministry of the Environment's NPC-233 Noise Guideline and the noise level limit of 40 dBA at the Point of Reception."*

A study of setbacks in effect around the world yields a plethora of answers and few, if any, constants. The most generally accepted standard is one of noise level at the nearest receptor (residence, school, day care and similar occupied buildings). That is the current standard in Ontario and, based on our review of other recent installations, there are many locations that meet the proposed and current noise standard of 40 dbA at a lesser distance than the proposed minimum setback from a receptor of 550 meters.

As evidenced in the attached tables, only wind generators are being singled out for road, property line, etc. setbacks based on their height. There are no such regulations for hydro transmission towers, microwave and telephone repeater towers, tall buildings, water towers, etc – many of which are located in populated areas immediately adjacent to schools, homes and the like. XAG Energy was unable to find any evidence that wind turbine towers and related equipment are any more or less structurally stable than any other comparable structure.

Lastly, the proposed regulations will require a submission to the MoE for every turbine generator larger than 3 kilowatts (kW). To better understand 3 kW, the average subdivision home built today has a 100 amp service. At 120 volts, this equates to 12 kW of power availability. Not every home uses the full amount of this power all of the time, but you can see that it greatly exceeds 3 kW. At peak load, usage could be as much as 80% of the rated service capacity i.e. 9.6 kW. You then can see what this restriction will do to farmers and the like who have one or two smaller wind turbines to power their feed, milking, conveyor, etc. operations thereby requiring much more power than an average home. These are what will refer to as 'small' wind turbines. – large enough to power a farming operation, but much smaller than typical wind farm 1,500 kW and up turbines.

XAG Energy Summary

Proposed Technology-Specific Requirements	A. Land-based Wind Turbine Facilities	B. Off-shore Wind Turbine Facilities	C. Biogas Facilities (Anaerobic Digesters (AD))	D. Biomass Facilities (Thermal Treatment)	E. Landfill Gas Facilities	F. Hydro Electric Facilities	G. Solar Photovoltaic Facilities
Noise Setbacks	550M minimum regardless of results of any noise studies.	Determined by Noise Study Results	Determined by Noise Study Results	Determined by Noise Study Results	Determined by Noise Study Results	Determined by Noise Study Results	Determined by Noise Study Results
Noise Setbacks for Transformer Substation	500 - 1000M or potentially less with a Noise Study	Determined by Noise Study Results	None	None	None	None	None
Setbacks from Roads, Railways, and Property Lines	125M	N/A	None	None	None	None	None
Bird and Bat Studies/Natural Heritage and Wildlife	Preliminary study and mitigation plan where applicable	Preliminary study and mitigation plan where applicable	None	None	None	None	None
Decommissioning Plan	Required	Required	Required	Required	N/A	N/A	Required
Conditions of Approval	Low frequency noise requirements being developed.	N/A	N/A	N/A	N/A	N/A	N/A
Emission Summary and Dispersion Modelling (ESDM) Report for Air Contaminants	N/A	N/A	Required	Required	Required	Required	N/A

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Noise Study to determine if modelling is consistent with existing MOE noise guidelines (Guidelines NPC-232 or NPC-205)	N/A	Required	Required	Required	Required	Required	Required
Odour Study	N/A	N/A	Required	Required	N/A	N/A	N/A
Setbacks	See specific setbacks above	See specific setbacks above	Odour Setback - 250 M Storage Setback - 125M	Odour Setback - 250 M	N/A	N/A	N/A
Design and Operations Report	N/A	N/A	Required	Required	N/A	Required	N/A
Effluent Management Plan	N/A	N/A	Required	Required	N/A	Required	N/A
Surface Water Assessment	N/A	N/A	Required	Required	N/A	Required	N/A
Hydro-Geologic Assessment	N/A	N/A	Required	Required	N/A	Required	N/A



XAG ENERGY POSITION STATEMENT for the “Proposed Content for the Renewable Energy Approval Regulation under the Environmental Protection Act”

With regard to the Ministry of Environment Ontario and their “Proposed Content for the Renewable Energy Approval Regulation under the Environmental Protection Act” please accept the following as XAG Energy’s official position based on their research. This position forms the basis of our comments that will be provided to the Ministry of the Environment during the official comment period running between the 9th of June, 2009 and the 24th of July, 2009.

XAG Energy strongly supports the Canadian Wind Energy Association (CanWEA) recommendations for setbacks and therefore recommends the following changes to the proposed regulations:

1. Amend Noise Setbacks

Amendment of proposed minimum noise setbacks to those noted in the MoE’s own October 2008 Sound Guidelines for Wind Turbines,

2. Amend Setbacks from Roads, Railways and Property Lines

Amendment of proposed minimum setbacks from non-participating roads, railways and property lines from an arbitrary 125M to the length of one blade plus 10 meters, and

3. Amend Regulations regarding ‘Small’ Wind Turbines

Increase the proposed upper limit of 3 kW for ‘small’ wind turbines to allow for farm, cottage and other stand-alone installations. To stimulate job creation we recommend that until reliable data has been analyzed for health risk assessment, Turbines less than 0.05 megawatts should remain unregulated to develop a market of “self consumers” who do not intend on selling back to the grid, for inventors and manufacturers who are best positioned to innovate the renewable energy sector, and to continue incentives for Canadian SR&ED.

**THIS POSITION STATEMENT SHOULD BE CONSIDERED WITH THE
“BACKGROUND” CREATED BY XAG ENERGY PROVIDING ADDITIONAL
INFORMATION AS TO WHY THIS POSITION WAS TAKEN.**