

Blue Highlands Citizens Coalition

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Niagara Escarpment Commission
99 King Street East
Thornbury, ON
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Attention: Ms. L. Richardson
Senior Planner

Dear Sirs/Mesdames:

Niagara Escarpment Commission Policy Report re: Wind Power Development

By way of this letter, the Blue Highlands Citizens' Coalition (the "Coalition") wishes to submit to the Commission the Coalition's comments regarding the Commission's October 6, 2003 Policy Report re: Wind Power Development.

By way of background, the Coalition is a group of residents of the Town of the Blue Mountains and the Municipality of Grey Highlands who have concerns regarding the current proposal by Superior Wind Energy Inc. ("SWEI") to build a 100MW wind farm atop the Niagara Escarpment running in a south-easterly direction from just south of the Loree Forest to about the Village of Singhampton.¹

The issue of whether, and to what degree, wind power development should be permitted on lands subject to control under the Niagara Escarpment Planning and Development Act (collectively, "NEP Area Lands") is, in the Coalition's view, very difficult to resolve. On the one hand, the Coalition recognizes the emissions reduction-related benefits of wind-powered

¹ Although SWEI has stated that the "Blue Highlands" project will be limited to 100MW of installed capacity, SWEI has applied to the IMO for (and has received) approval for the connection to the grid of 200MW of installed capacity from the proposed "Blue Highlands" project.

electrical generation facilities. Indeed, the Coalition supports responsible wind energy development initiatives. On the other hand, however, the Coalition is well aware of, and supports, the environmental land use planning objectives of the Niagara Escarpment Plan (the “NEP”) and the related policies of the Commission.

As a starting point in developing a policy approach to resolving that difficult issue, the Coalition considers it important to consider the following factors:

1. The policy approach must consider, and properly balance, the competing objectives and priorities applicable to the development of wind power facilities in Ontario generally and on the Escarpment in particular.
2. The policy approach should contribute to certainty in the planning process relating to wind power development in the Province generally and on the Escarpment in particular.
3. The policy approach must be analysed with regard to not only the effects which it will have on wind power development on NEP Area Lands but also for the effects which it will have on development generally on NEP Area Lands.

With respect to the first of these factors, the Coalition is concerned that in many cases the debate regarding wind power development on NEP Area Lands is centred on the question of whether wind power is a “good thing” or a “bad thing”. Concluding that wind power is a “good thing” may lead to support for wind power development on NEP Area Lands.

Unfortunately, however, the issue at hand cannot be resolved by such a simple question. Once a conclusion has been reached that wind power, at a broad conceptual level, is a “good thing”², it becomes necessary to then turn to a consideration of the relevant development-related details (*e.g.*, what specific sites are suitable for development? What is the appropriate

² The Coalition notes that its members have reached this conclusion.
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scale of development at a particular site?, etc.). It is in sorting out and resolving those various details that the Coalition believes a balanced approach is necessary.

With respect to the second of the factors listed above, the Coalition believes that any policy on wind power development on NEP Area Lands will only be effective if it provides interested parties with reasonable clarity as to what development, if any, will be permitted, and what development will not be permitted. A lack of clarity on the development issue will lead to development proposals which in certain cases can reasonably be expected to generate controversy and result in the allocation of human (and other) resources towards the resolution of controversial development proposals. Inefficiencies and delays in the development of the wind power industry in the Province will result.

With respect to the third of the factors listed above, the Coalition believes that the individual development criteria of the NEP and the Commission's related policies cannot be formulated and applied in isolation from each other. Indeed, a consistent and rational approach to the application of the NEP development criteria and the Commission's related policies is an important element in ensuring the achievement of the NEP's stated purpose of maintaining the Escarpment and land in its vicinity substantially as a continuous natural environment. To the extent that the application of any one development criterion or policy results in development which is perceived as inconsistent with other development criteria and policies, the longer-term integrity of the NEP (and the credibility of the Commission) can reasonably be expected to be impaired.

In analyzing the Policy Report's content and recommendations, the Coalition has attempted to give due and proper weight to a valid consideration of each of the three factors listed above.

Certain other observations are noteworthy in considering the Policy Report's content and recommendations. These are as follows.

Competing Objectives

In the Coalition's view, the Policy Report properly identifies the existence of a clear conflict of competing objectives in the case of proposed wind power development on NEP Area Lands. The Coalition does not support the assertion apparently made by various third parties to the effect that the Policy Report represents an "anti-wind" position. Rather, the Policy Report properly presents a "pro-Escarpment preservation" position which contemplates some potential for appropriate wind power development on the Escarpment.

Experience in Other Jurisdictions

The Policy Report properly observes that the wind power industry is in its infancy in Ontario. Accordingly, the people of the Province have the opportunity to learn from the experiences of other jurisdictions with respect to the appropriate siting and development of wind power facilities. The Coalition's research on this issue has led to the conclusion that the development of wind power facilities has often been the subject of significant concern from a landscape preservation perspective in jurisdictions which have had the benefit of significant wind power development experience. Indeed, in many cases concern over landscape preservation has led to significant restrictions on, or outright prohibitions of, wind power developments. By way of example, in Germany, the world leader in installed wind power capacity, wind power facilities are prohibited in the entire Alpine region of South-East Bavaria, based on the detrimental effect of wind power facilities on the landscape. It would be imprudent for a similarly valued scenic resource in Ontario to be subjected to adverse landscape effects stemming from wind power development without due regard to the restrictive approach taken by jurisdictions with greater experience.

World Biosphere Reserve Designation

The Coalition is aware that both proponents and opponents of SWEI's "Blue Highlands" development proposal have utilized the Escarpment's UNESCO Biosphere Reserve designation as a basis for arguments either for or against, as applicable, SWEI's development

proposal. With due respect to both arguments, the Coalition considers the Escarpment's Biosphere Reserve designation to be largely irrelevant to the specific and narrow question of whether wind power development should or should not be permitted, to at least some degree, on NEP Area Lands³. The Biosphere Reserve designation was never intended by UNESCO to serve as an adjudicative mechanism in resolving an issue of that nature.

The Coalition notes that the issue of whether wind power development should be permitted on NEP Area Lands is not to be resolved by reference to any UNESCO-mandated position⁴ but rather by reference to the NEP development criteria and the Commission's related policies. Those criteria and policies are developed based on the stated purpose and objectives of the NEP.

A similar approach is taken in the case of all other UNESCO-designated Biosphere Reserves. Since there is significant variation in the purposes and objectives of the various governing bodies (and underlying planning statutes and regulations) which are responsible for the administration of UNESCO Biosphere Reserves, there is a corresponding variation in the approach to wind power development in different Biosphere Reserves. For example, the El Hierro Biosphere Reserve in the Canary Islands (which consists of the smallest island in the Canary Islands archipelago) has an objective of developing renewable energy sources (including wind) to satisfy 100% of its energy requirements. On the other hand, wind power developments are entirely prohibited in the Bardenas Reales Biosphere Reserve in Spain and in the Berchestgaden and Spreewald Biosphere Reserves in Germany.

In the Coalition's view, the question of whether and to what degree wind power development should be permitted on NEP Area Lands is properly resolved by reference to the purpose and objectives of the NEP and the related development criteria, and not to the Escarpment's designated status as a UNESCO Biosphere Reserve.

³ The Escarpment's designation as a UNESCO Biosphere Reserve does highlight the appropriateness of ensuring that the environmental land use planning purposes and objectives of the NEP are respected in the context of development proposals.

⁴ No such UNESCO-mandated position exists.

Purpose of the NEP

The NEP has two stated purposes. The first is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment. The second is to ensure that only such development occurs as is compatible with that natural environment.

In the Coalition's view, some degree of wind power development on NEP Area Lands is consistent with the stated purposes of the NEP. However, the degree of wind power development which is permitted must be determined by a consideration of whether the proposed scale of development is compatible with the Escarpment's natural environment.

The Coalition recognizes that individual reactions to the view of wind turbines will vary. Some individuals will find turbine structures attractive and will describe the structures as symbols of sustainable living. Others will describe turbine structures as menacing monstrosities with a particularly invasive effect on a scenic landscape. Other opinions will fall between these points.⁵

With due respect to individual perceptions as to the attractiveness (or lack thereof) of turbine structures, however, the Coalition makes the obvious observation that turbine structures are man-made. As such, their installation on the Escarpment, if not properly controlled, will conflict with the NEP's purpose of maintaining the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment. In the Coalition's view, therefore, the question to be considered is not whether turbine installations are consistent with the first stated purpose of the NEP but rather what degree of wind power development can be permitted pursuant to the second stated purpose of the NEP.

The Coalition believes that, in answering this question, (*i.e.*, what degree of wind power development can be permitted pursuant to the second stated purpose of the NEP?), due

⁵ The Coalition notes that relatively undeveloped portions of the Escarpment in close proximity to urbanized areas of southern Ontario already serve, in their close-to-natural states, as superb symbols of sustainable living.

and proper regard must be had for the development criteria and the objectives of the NEP. The Coalition has taken this factor into account in developing its recommendations outlined below. The Coalition considers such an approach to be consistent with the integrity of the NEP, the credibility of the Commission, and the resulting achievement of the NEP's objectives.

Available Wind Resources

By a number of measures, Ontario has significant wind resources. The Chair of the Ontario Wind Power Task Force has estimated Ontario's developable land-based wind resource at 7,500 MW, with a far greater developable offshore resource. While a small proportion of these resources can be expected to be attributable to sites within the NEP area, it is clear that there are many alternative sites away from NEP Area Lands. Thus, a restrictive approach to wind power development on NEP Area Lands will not prevent wind power development in the Province generally.

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Based on the preceding discussion, the Coalition makes the following specific comments regarding the Policy Report recommendations.

1.0 Policy Report Recommendation 1: The Policy Report's first recommendation is that "*[t]he Commission supports the concept of wind power generation in appropriate locations in the Province. The area of the Niagara Escarpment Plan should not, however, be the focus of large-scale industrial-type wind power development. The emphasis must be on preserving the natural scenery in the Escarpment corridor over the long term.*"

1.1 Coalition Comment:

In the Coalition's view, this recommendation properly prioritizes the continued preservation of the Escarpment substantially as a continuous natural environment. At the same time, however, the recommendation would not serve to preclude all wind power development on

the Escarpment. The recommendation is therefore consistent with the stated purposes of the NEP.

However, the recommendation is weakened by its use of the phrase “large-scale industrial-type wind power development”, a phrase which is not defined.

Rather than attempting to categorize wind power developments as either falling into or, alternatively, not falling into, the “large-scale industrial-type” category of development, the Coalition recommends that a more general policy approach be expressed by Recommendation 1. The more general policy approach could be enunciated by simply providing that the NEP area should not be the subject of significant wind power development. The Coalition believes that this is a simple and clear manner in which to express a basic policy direction which is consistent with the NEP’s stated purposes and objectives. Such a formulation of Recommendation 1 assists in clarifying that, *as a general rule*, the conflict between, on the one hand, the preservation of the natural scenery of the Escarpment and, on the other hand, significant wind power development on the Escarpment, would be resolved in favour of the preservation objective. At the same time, however, uncertainty stemming from the use of the terms “large-scale” and “industrial-type” wind power development can be avoided.

1.2 Coalition’s Suggestion: Recommendation 1 in the Policy Report should be re-formulated as follows:

The Commission supports the concept of wind power generation in appropriate locations in the Province. The area of the Niagara Escarpment Plan should not, however, be the subject of significant wind power development. The emphasis must be on preserving the natural scenery in the Escarpment corridor over the long term.

2.0 Policy Report Recommendation 2: The draft policy paper recommends that “*large-scale industrial-type wind power developments should not be permitted in those portions of the NEP that are prominent for their scenic resources and natural values. This would include Escarpment Natural Areas, Escarpment Protection Areas, portions of Escarpment Recreation*

Areas, and portions of the Escarpment Rural Areas that make up part of sensitive scenic landscape units”.

2.1 Coalition Comment: For the reason specified in the discussion above regarding Recommendation 1, the Coalition believes that the use of the phrase “large-scale industrial-type wind power developments” is vague and should be avoided. In the context of Recommendation 2, the Coalition believes that it is more appropriate to introduce the concept of “Tall Tower” wind power development. A “Tall Tower” development could be defined as any development utilizing towers which are proposed to exceed a certain height.

The Coalition sees merit in such an approach in that the visual impact of a turbine tower on the Escarpment environment is directly related to the tower’s height. Many wind-powered turbines below a certain height will have a minimal negative impact on the Escarpment environment. The erection of such turbine structures should obviously be encouraged, subject to the satisfaction of applicable development criteria. On the other hand, control needs to be exerted over the erection of turbine structures which cannot satisfy applicable development criteria due to their height-related impact on the Escarpment environment.

The difficult issue which arises in this context relates to the height at which a turbine structure’s adverse impact on the Escarpment environment is such that applicable development criteria will not be satisfied. That height will vary from case to case, given the varying topography and sightlines within or across NEP Area Lands. However, in the interests of certainty, the Coalition recommends that an objective “Tall Tower” height categorization be adopted by the Commission. In the absence of a specific height criterion defining what height of tower will be deemed to not be capable of satisfying applicable development criteria in valued scenic resource areas, uncertainty and controversy can be expected to plague development applications.

The Coalition notes that a Commission review of a 98-foot turbine tower with 30-foot diameter blades (*i.e.*, for a total height of 113 feet) reached the conclusion that “in a majority

of cases, wind generator towers may not be able to satisfy the applicable Development Criteria of the NEP”.

Based on the conclusion reached from that review, the Coalition recommends the adoption of a “Tall Tower” category of wind power development. A “Tall Tower” development would consist of any proposed turbine power installation where the hub height of the proposed tower would exceed 100 feet and/or the overall height of the structure (*i.e.*, including height contributed by rotating blades) would exceed 115 feet.

The Coalition recognizes that a recommended hub height threshold of 100 feet and/or an overall height threshold of 115 feet constitute heights which are lower than certain installed communications towers in the NEP area. However, the lower height thresholds applicable to proposed wind turbine structures can be justified on the basis that the nature of a turbine structure (including the rotating blade feature) adds a significant degree of visual impact which is not applicable in the case of a static communications tower. As well, the recommended height thresholds are consistent with the basic tower structure parameters which were studied in reaching the aforementioned conclusion that “in a majority of cases wind generator towers may not be able to satisfy the applicable Development Criteria of the NEP”.

Another aspect of Recommendation 2 which merits attention is the implication that the suitability of a particular proposed wind tower installation site should be assessed on the basis of the NEP land use designation of the proposed tower site. The Coalition strongly disagrees with this approach for the following reason.

Visual impact studies indicate that the installation of tall turbine structures can reasonably be expected to have a material impact on the surrounding landscape and related viewsheds from significant distances. The Escarpment is, of course, anything but a linear feature which can be easily assessed from a viewscape/landscape perspective. Indeed, the variation in the Escarpment’s features and topography means that it is exceedingly difficult to draw general conclusions about the impact on the Escarpment landscape and environment based on whether a wind tower structure is installed in any particular land use designation.

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By way of a simple example, a proposed tower site may be located on a lot designated as “Escarpment Rural” and in an area which may border on, but may not fall squarely into, a “sensitive scenic landscape unit”. Such a site might, according to the current formulation of Recommendation 2, constitute a site which merits serious consideration as a permitted installation site. However, if the site falls into the line of sight of an observer of a scenic constituent element of the Escarpment, significant impacts on the Escarpment landscape could easily result from a tower installation on that particular site.

In light of this, the Coalition recommends that Recommendation 2 be revised so as to eliminate any reference to particular site-specific land use designations as an element of the decision-making process regarding the suitability of any particular proposed wind tower installation site. The Coalition believes that the emphasis in analyzing the suitability of any particular proposed installation site should be on a consideration of overall impact on the Escarpment landscape of the proposed wind tower installation.

The Coalition notes that the first sentence of the current formulation of Recommendation 2 will require, as a practical matter, the identification of those portions of the NEP area that are “prominent for their scenic resources and natural values”. The Coalition has two recommendations in that regard. First, the emphasis should be on protecting areas of the NEP which are “valued for their scenic resources and natural features”. Second, a presumption in favour of the NEP area as a valued scenic resource should apply. The result of that presumption would be to place an onus on the proponent of a “Tall Tower” development to clearly demonstrate that the proposed development area is a portion of the NEP area which is not valued for its scenic resources and natural features. The Coalition expects that the imposition of that onus will assist developers in determining whether a particular Tall Tower development site proposal will succeed. The result will be a reduction in controversial development proposals which will require the allocation of significant resources by various stakeholders (including developers and the Commission) in resolving issues relating to the suitability of a proposed development site.

The Coalition believes that appropriate restrictions on Tall Tower developments on NEP Area Lands will assist in maintaining the integrity of the NEP and the achievement of the NEP's stated purposes and objectives in the face of general development pressures on the Escarpment. In particular, the Coalition believes that if Tall Tower installations are not appropriately restricted, there will be a longer-term impairment of the Commission's ability to credibly and successfully restrict other unrelated development proposals which can reasonably be expected to have deleterious effect on the visual attractiveness and natural features of the Escarpment. The overall cumulative effect on the Escarpment could well be inconsistent with the NEP's stated purposes.

2.2 Coalition's Suggestion: Recommendation 2 should be re-formulated so as to provide that "Tall Tower wind power developments should only be permitted in those portions of the NEP which are not valued for their scenic resources and natural features"⁶. This re-formulation of Recommendation 2 would require the introduction of a definition of the term "Tall Tower" (i.e., a turbine/tower structure with a tower hub height exceeding 100 feet and/or an aggregate overall height exceeding 115 feet).

3.0 Policy Report Recommendation 3: The current form of Recommendation 3 is that "*[i]ndividual, smaller-scale household or farm wind generators can be considered on a case-by-case basis as uses accessory to existing uses, throughout the NEP designations, as has been done in the past through the Development Permit review process*".

3.1 Coalition's Comment: Similar to the Coalition's comments above relating to Recommendation 2 regarding the phrase "large-scale industrial-type wind power developments", the Coalition believes that the phrase "individual, smaller-scale household or farm wind generators" is unnecessarily vague and should be eliminated in favour of a more clearly defined term. In particular, the Coalition recommends that reference be made in Recommendation 3 to tower structures which are of a height that falls below the defined "Tall Tower" threshold level.

⁶ For the sake of certainty, the Coalition confirms that it recommends the deletion of the second sentence of the current formulation of the Policy Report's second recommendation, for the reasons specified on pages 10 and 11 in Section 2.1 of this submission.

Tower structures below the “Tall Tower” threshold level would be defined as “Short Tower” structures.

One of the ramifications of utilizing a general reference to “Short Tower” wind power developments in Recommendation 3 would be to leave open the possibility of the development on NEP Area Lands (subject always to applicable development criteria) of wind power generation facilities which are not merely accessory to existing uses. In particular, the Coalition expects that many Short Tower wind generation facilities will be capable of producing more electricity than will be required at an individual household or farm operation level. Excess power generated from these facilities should, in the Coalition’s view, be permitted to be “exported” into the provincial power distribution grid. Accordingly, some opportunity for “commercial” wind power generation will result from the installation of a Short Tower facility on NEP Area Lands. So long as the relevant Short Tower facility can satisfy the applicable development criteria, however, the Coalition considers such commercial wind power generation to be appropriate and acceptable. In particular, the Coalition does not believe that a Short Tower facility should be prohibited merely on the basis that power exceeding the needs of a single household or farm operation will be produced by the facility. Short Tower facilities located on NEP Area Lands and owned and operated by local community and resident organizations could, subject to the satisfaction of applicable development criteria, make a positive contribution to wind-generated electrical power availability on the Ontario grid network without conflicting with the purposes and objectives of the NEP and the applicable development criteria.

3.2 Coalition’s Suggestion: The current form of Recommendation 3 should be revised as follows: “Short Tower wind power developments can be considered on a case-by-case basis throughout the NEP land use designations, as has been done in the past through the Development Permit review process”. This re-formulation of Recommendation 3 would require the introduction of a definition of the term “Short Tower” (*i.e.*, a turbine/tower structure with a tower hub height not exceeding 100 feet and/or an aggregate overall height not exceeding 115 feet).

Policy Report Recommendation 4: The Coalition supports the current formulation of Recommendation 4. The Coalition notes that the visual impact of a turbine structure, particularly of the proposed Tall Tower category, can reasonably be expected to have an impact on the Escarpment environment in a case where the turbine structure is erected within reasonable proximity to any NEP Area Lands. As has been noted previously, the Escarpment is characterized by significant variations in topography and features. Accordingly, sightlines affording views of the Escarpment often cross, or extend to, lands outside of the NEP area. Accordingly, significant potential exists for impairment of (i) perceptions of the Escarpment and NEP Area Lands as a substantially natural environment, and (ii) the Escarpment's visual attractiveness, as a result of turbine structure installations on lands within reasonable proximity to NEP Area Lands. Pursuit of the NEP's stated purposes and objectives, will, accordingly, require the Commission to make strong comments regarding proposed wind power developments on lands in reasonable proximity to NEP Area Lands in certain circumstances.


5.0 Policy Report Recommendation 5: The Coalition supports the current formulation of Recommendation 5. In particular, the Coalition supports the proposition that, until a material portion of the Province's wind resource has been developed in areas other than the Escarpment, NEP Area Lands should not be the subject of significant wind power development. The question of whether the area of the NEP (or portions thereof) should be the subject of significant wind power development should be revisited only once a significant portion of the Province's wind resource has been developed and both (i) a clear commitment by the Province and its citizens to wind power as an acceptable, economic and long-term power generation option, and (ii) a willingness on the part of Ontario's citizenry to sacrifice the Escarpment's significant natural scenic resources for the sake of further wind power development, have been clearly demonstrated. No portion of the Escarpment should serve as a testing ground for public attitudes towards the landscape effects of wind power developments.

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We trust that the foregoing submissions will be helpful to the Commission in its efforts to further develop its Policy Report re: Wind Power Development. The Coalition would welcome the opportunity to present its views directly to the Commission at the relevant meeting of the Commissioners.

Yours very truly,

BLUE HIGHLANDS CITIZENS COALITION

By: 
Name: Peter S. MacGowan
Title: President