Appendix N

Planning Brief

A PLANNING **B**RIEF

IN SUPPORT OF THE 20 MW WIND ENERGY PARK PROPOSAL OSTRANDER POINT, PRINCE EDWARD COUNTY (SOUTH MARYSBURGH WARD)

PREPARED FOR

GILEAD POWER CORPORATION

PREPARED BY: Bousfields Inc. JULY 2008

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1.0 INTRODUCTION

Noise:

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This Planning Report has been prepared in support of a wind farm development proposed by Gilead Power Corporation, to be located on the shore of Lake Ontario in the former Township of South Marysburgh, in the municipality of Prince Edward County. Specifically, the subject site is located on the 324-hectare tract known as the Ostrander Point Crown Land Block as shown on Figure 1.

This Report is based on the findings of the professional consulting team which includes:

- Land Use Planning: Bousfields Inc.
- Environmental Assessment: Stantec Consulting Limited
- Visual Impact: Stantec Consulting Limited

Aercoustics Engineering Limited

- Wind Plant Construction: Wind Plant Operation:
 - The Dalton Company Inc. **Gilead Power Corporation**

The proposed wind project is to contribute energy to meet Ontario's existing and growing electricity needs, and to further the Provincial objective of utilizing cleaner energy sources. The proposal represents a potential renewable source of electric power having a total nameplate capacity of up to 20 mega watts (MW), which will assist in the achievement of the Province's target of 2,700 MW of renewable electric capacity in place by 2010.

This Report concludes that the proposed wind farm is consistent with the policy framework expressed in the Ontario Provincial Policy Statement 2005 and the Prince Edward County Official Plan, both of which support renewable energy projects. From a land use perspective, given the ideal locational and physical attributes of the subject site, the proposed wind farm is compatible with surrounding uses, fulfills a stated need and represents good planning. Given the Province's renewable energy target, its development is timely.

2.0 DESCRIPTION OF THE PROPOSAL

2.1 **PROJECT BACKGROUND**

The proposed Ostrander Point Wind Energy Park is situated on Crown Land. As the Province is supportive of wind energy, a special process has been established for private wind energy developers to follow in the emplacement of generating facilities on strategically located Crown Lands.

On February 1, 2006, Gilead was selected by the Ontario Ministry of Natural Resources (MNR) as the Applicant of Record for the Ostrander Point Crown Land Block. This Applicant of Record status follows two phases. Phase One allowed Gilead to determine the viability of developing a wind farm on the lands. Phase Two allows Gilead to apply



for any necessary municipal approvals and proceed through the parallel but separate (Ontario Regulation 116/01) Environmental Screening requirements to construct and operate a wind farm on the lands.

There are no rights or tenure associated with this Applicant of Record status and Gilead is not entitled to make any alterations to the lands beyond those required to construct and operate the wind farm itself. The Applicant of Record status is not transferable and applies only until a Crown Lease is issued or the Applicant of Record status is surrendered or revoked. As the Applicant of Record, Gilead is required to complete all applicable federal, provincial, municipal and environmental screening requirements prior to any authorizations or approvals being issued.

Following completion of the Environmental Screening process, Gilead will apply to the MNR for a lease to use the Crown land for wind power development for a period of 25 years. Jacques Whitford Limited (Jacques) released the Notice of Commencement for the Environmental Screening on November 23, 2007. As part of that process, a public consultation, open house, was held on January 19, 2005 and correspondence and meetings with landowners have taken place. A second public open house is expected to be scheduled in late summer, 2008. It is anticipated that the Environmental Screening Report (ESR) now in preparation by Stantec Limited, will be completed for stakeholder review some time in March, 2009.

2.2 DESCRIPTION OF THE PROPOSED WIND FARM

The Ostrander Point consists of up to 12 wind turbines and ancillary facilities distributed across the site. The actual footprint of the tower structures and ancillary facilities for the proposed wind farm will occupy less than 2% of the land base. **Figure 2** provides the proposed preliminary project layout. As seen, the turbines and access roads are not proposed on wetlands and are primarily situated outside the wooded areas. Furthermore, turbines have been set back from local traveled roads at minimum distance of 120 metres.

Each turbine will be accessed internally by a permanent driveway approximately 3 metres wide. During construction, these roads will be 10 metres wide with 7 metres to be reclaimed following construction. These access roads will have a combined length of some 5 kilometres. Additionally, some local roads will need to be upgraded to facilitate the transportation of the construction components of the turbines and cranes to the site.

As noted, each turbine is expected to have a nameplate capacity of about 1.5 MW. The electricity generated by the turbines will be collected through electrical cables leading to a transformer station near the northwest corner of the site from whence it will be delivered, via a pole-mounted 44 kv transmission line to be constructed along Helmer, Hilltop, Dainard and Maypullayn Roads, to a distribution station near the Hamlet of Milford owned and operated by Hydro One, where it will enter the provincial grid. (See **Figure 1**.)



The transformer station will step up the electrical output from the 13.5 kilo volts (kV) produced by the turbines to the 44kV transmission line transporting the electricity generated to the high voltage grid. The substation will be enclosed within a fence and screen planting based on standard utility practices.

2.3 TURBINE SPECIFICATIONS

Figure 3 shows that the key components of a wind turbine consist of a poured-in-place tower foundation of approximately 10 metres by 10 metres to a depth of 3 metres, a cylindrical tower topped by a nacelle containing the generator which is connected to a hub supporting three rotor blades. The nacelle and blades pivot to face into the wind in weathervane fashion.

In addition to the electric generator, the nacelle includes a gear box, as well as blade and turbine control equipment, sensors, and cooling equipment. These components are connected to the blades via a main shaft. Access to the nacelle for maintenance is via a ladder within the tubular tower. As noted above, the specific model of turbine had not been selected at this writing.

The towers will be approximately 80 metres in height to the hub, with the length of each rotor blade being approximately 40 metres. The blades will rotate at a rate between XX and XX revolutions per minute within a wind speed range of about 5 to 25 metres per second. Beyond that range, the turbines will shut down automatically.

2.4 ACCESS TO THE HIGH VOLTAGE GRID

The distance to the Hydro One high voltage grid can greatly determine the viability of a wind plant. The longer the connection, the more energy is lost in transmission and the higher the cost of supporting infrastructure.

The interconnection between the project transformer and the provincial electricity grid will be at Hydro One's Milford Distribution Station, through a distribution line expected to be constructed and owned by Hydro One Networks Inc. **Figure 1** illustrates the proposed 44kV line connection line route from the Ostrander Point transformer station and the Milford Distribution Station, a distance of some 13 kilometres.

3.0 THE PHYSICAL SETTING

3.1 SITE CHARACTERISTICS

The Ostrander Point wind farm will be located in the South Marysburgh Ward of Prince Edward County, Ontario. The approximately 324 hectare site is situated about halfway between Point Petre and Prince Edward Point, is bounded by Ostrander Point Road on the east, Lake Ontario to the south, Babylon Road and Helmer Road to the north just



past Petticoat Lane to the west. The site is presently vacant, except for a meteorological station. It is understood that the property was last used for agricultural purposes more than 50 years ago. Today the site is occasionally used for recreational purposes including birding.

Physically, the site is level, low lying, and characterized by a relatively thin soil layer over the underlying limestone bedrock. Groundcover consists primarily of grasses, shrubs and small trees as seen on **Figure 4** which illustrates the various vegetation regimes which are present. Pockets of perched wetlands are situated along Helmer Road and in the south east corner of the property.

There is only one intermittent unnamed watercourse within the site, within which no fish were observed. It appears to drain a deciduous wetland complex adjacent to the eastern edge of the site. However, there appears to be no direct access between this wetland and Lake Ontario due to the intervening elevation of the beachline.

In terms of wildlife, the site demonstrates a high diversity of habitat types that host fauna typical of Prince Edward County and areas of similar soil and vegetative characteristics found elsewhere in southern Ontario. However, due to its diversity of available habitats, it is our understanding that the site has also provided habitat for at least one significant species, i.e. the rare Blanding's Turtle, which has been reported to be present.

3.2 THE SURROUNDINGS

The area surrounding the site can generally be characterized as rural exhibiting only marginal agricultural activity, much of which has been abandoned due to the shallow, poorly drained and unproductive soils which prevail. Recreation activities which are prevalent in the area include dirt biking, ATVing, hunting, birding and hiking.

The South Marysburgh Ward is sparsely populated with only about 900 persons residing within a 107.5 square kilometre area, i.e. equating to roughly 8 persons per square kilometre. An initial noise study by Jacques Whitford Consultants dated November 16, 2007 identified the three¹ nearest points of reception (POR) to the turbine layout shown on **Figure 2**. They are:

| POR 1 | Seasonal residence | 494 Ostrander Point Road |
|-------|---------------------|--------------------------|
| POR 2 | Permanent residence | 587 Babylon Road |
| POR 3 | Seasonal residence | 331 Helmer Road |

Appendix 'B' is an excerpt from that report setting out the results derived from acoustic modeling exercises based on the two most likely turbine types; i.e. GE sle 1.5 MW System or the Vestas 1.65 MW System.

¹ The dwelling on the east side of Ostrander Point Road, about midway between Babylon Road and the lake, as shown on Figure 2 was obviously abandoned many years ago and is now in ramshackle condition. 494 Ostrander Point Road is the closest of a small cluster of cottages situated on the Point.



The modeling predicted that all three points of reception would be well below the applicable MOE limits.

Ostrander Point is Provincially owned and is designated and managed as a Resource Management Area by the Ontario Ministry of Natural Resources (MNR). The South Bay Coastal Wetland is a Provincially Significant Wetland (PSW) that is partially located within the site. South Bay Marsh and Big Sand Bay Wetland are also PSW's found within 6 kilometres to the northwest and northeast of the site, respectively. Additionally, Little Bluff Conservation Area is located approximately 1 kilometre to the north of the site.

The Mohawks of the Bay of Quinte First Nation is the closest indigenous group, located some 35 kilometres to the north of the site. The Alderville First Nation is located about 100 kilometres to the northwest.

To the east (6.6 kilometres) is the Prince Edward Point National Wildlife area, a 567hectare National Wildlife Area managed by the Canadian Wildlife Service. It is also rated as a Provincial Life Sciences Area of Natural and Scientific Interest because of its importance as a staging area for migrant songbirds. It is also designated an International Monarch Butterfly Reserve.

3.3 THE WIND REGIME

As can be seen on **Figure 5**, taken from the Ontario Wind Resource Atlas in October of 2007, the Province of Ontario has finite wind energy capabilities. Of the areas identified as very good to exceptional, only a small proportion can be utilized for wind energy production because of excessive distances to the trunk transmission grid. **Figure 6** illustrates the wind regime at 80 metres above ground level for the Ostrander Point site. It shows that the average wind speeds for this area are acceptable to very good.

Wind data were collected for the project for over a 12-month period, using a 60-metre tall meteorological tower installed onsite and were analyzed by Helimax Energy Inc. using a long-term adjustment to validate the climatologically representativeness of the observed wind speeds and directions. Helimax has determined that sufficient wind energy is available to justify emplacement of a wind farm.

It was found that the prevailing winds blowing from northwest to southwest occur approximately 46% of the year. Calm conditions exist only about 1% of the time. During the 1999 – 2003 timeframe, wind speed averaged about 23 kilometres per hour (km/h), ranging from an average of approximately 16 km/h during June to an average of 29 km/h in December. Not unexpectedly, prevailing winds were strongest between September and February, with lower wind densities observed during the spring and summer months.





3.4 PHYSIOGRAPHY OF THE SITE

Research conducted by Jacques Whitford found that all of Prince Edward County is situated within the Prince Edward Peninsula Physiographic Region, a low plateau of limestone shelves that project into the eastern part of Lake Ontario, almost separated from the mainland by the Bay of Quinte and Long Reach. The southern third of Prince Edward County contains limestone bedrock which is covered by a shallow layer of unconsolidated Farmington loam soil. These conditions create an "alvar-like" environment in many parts of the area.

The soils over the subject site are predominantly Melanic Brunisols and consist almost entirely of silt loams underlain by mainly fractured limestone bedrock at depths of 50 centimetres or less. Most of the soils on site are a gravelly composition (generally course fragments from 2-8 centimetres) containing very high sand and characteristic high silt content suggesting ancient lacustrine or beach deposits (see **Figure 7** for detailed soil composition throughout the site).

Excluding the scattered, perched wetlands situated behind the beach shoreline, soil moisture conditions are mostly moderately dry except during the spring freshet when shallow soils become saturated due to poor drainage which is restricted by the underlying bedrock at shallow depth. When the soils dry out during the summer growing season, drought conditions prevail. Slight depressions in the limestone bedrock contain deeper, moister, more saturated soils, including some organic material. Small stands of shrubs and grasses that are more tolerant of wetter soil conditions signify the presence of such depressions where water accumulates and remains for longer periods. The largest such area is the seasonal deciduous swamp woodland found in the southeast corner of the property.

4.0 **REQUIRED AMENDMENTS**

4.1 THE ONTARIO PLANNING ACT NOT APPLICABLE

As the proposed wind farm is situated on Crown Land, Section 71 of the Legislation Act, 2006 applies. It states that no Act or regulation binds Her Majesty or affects Her Majesty's rights or prerogatives unless an intention to do so is expressly stated (2006, c.21, Schedule. F, s.71). Furthermore, the Ontario *Planning Act* expressly does not bind the Crown in right of Canada. Accordingly, the requirements of the Ontario *Planning Act* do not apply to the Ostrander Point wind farm and thus Official Plan, zoning by-law amendments and site plan approval are not required. This has been confirmed by a letter from the Ontario MNR dated October 15, 2007, attached hereto as **Appendix 'A'**.

That stated, Gilead is quite willing to work with Prince Edward County on finalizing a mutually acceptable site plan and providing information to residents and stakeholders as to the nature and scale of the project.

FIGURE 7 SOIL COMPOSITION

GILEAD POWER, PRINCE EDWARD COUNTY **96** BOUSFIELDS INC.



4.2 POLICY AND REGULATORY CONSIDERATIONS

4.2.1 Provincial Policy Statement, 2005

The Provincial Policy Statement 2005 ("PPS") provides policy direction on matters of provincial interest related to landuse planning and development. Planning decisions made pursuant to the Ontario Planning Act are required to "be consistent with" the PPS. The PPS is intended to be read in its entirety and the relevant policies are to be cross-referenced and applied to each situation.

The PPS sets out policies that are supportive of renewable energy systems. Specifically Section 1.8.2 of the PPS states that:

"Increased energy supply should be promoted by providing opportunities for energy generation facilities to accommodate current and projected needs, and the use of renewable energy systems and alternative energy systems, where feasible."

Following therefrom, Section 1.8.3 states that:

"Alternative energy systems² and renewable energy systems³ shall be permitted in settlement areas, rural areas⁴ and prime agricultural areas in accordance with provincial and federal requirements. In rural areas and prime agricultural areas, these systems should be designed and constructed to minimize impacts on agricultural operations."

In this case, the "provincial requirements" referenced in Section 1.8.3 are the requirement of the Environmental Screening Process established under the Environmental Assessment Act and Ontario Regulation 116/01, which must conclude prior to the construction of the wind project. No federal requirements have been established as prerequisites to construction of this project.

In terms of Natural Heritage, Section 2.1.6 states that:

"Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.13, 2.14 and 2.15 [i.e. significant habitat, significant wetlands, significant areas of natural

² Alternative Energy Systems are defined in the PPS to mean sources of energy or energy conversion processes that significantly reduce the amount of harmful emissions to the environment (air, earth and water) when compared to conventional energy systems.

³ Renewable Energy Systems are defined in the PPS to *mean the production of electrical power* from an energy source that is renewed by natural processes including, but not limited to, wind, water, a biomass resource or product, or solar and geothermal energy.

⁴ Rural Areas are defined in the PPS to mean *lands in the rural area which are located outside settlement areas and which are onside prime agricultural areas.*

and scientific interest, significant habitat of endangered species and threatened species] unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions."

An Environmental Screening Report ("ESR") is in preparation by Stantec Ltd. this project. Preliminary environmental analysis by Jacques Whitford Ltd. has determined that there will be no negative impacts to the natural heritage as a result of the proposed wind farm.

It is our opinion that the proposed wind farm would be consistent with the policies set out in the PPS, 2005, as it is providing a source of renewable energy in a rural area with no impact on agricultural operations, and which does not have a negative effect on natural heritage features or on other sensitive uses.

4.2.2 Prince Edward County Official Plan, September 24, 2004 Consolidation

In terms of development, the County has adopted the principles of sustainable development through land use planning (Part III, Section 1.1.1).

The Prince Edward County Official Plan partially designates the subject lands "Outdoor Recreation Lands" and "Environmental Protection" along much of the shoreline as see on **Figure 8**. Privately operated wind farms and associated uses are not a permitted use in either designation, nor are they permitted as-of-right in any other designation.

'Outdoor Recreational Lands' are intended to provide a range of recreational and open space opportunities for both County residents and tourists. The Plan provides that Outdoor Recreational Land should be developed in a manner which maintains the integrity of the natural environment, protects the habitat of plant and animal life and conserves the quality of soil, air and water resources. The Plan also recognizes that the County's influence on Crown Land is limited, and the County will co-operate with senior levels of government to plan and manage this land resource.

The predominant use of land in the Outdoor Recreational Land designation is for public parks and beaches, major open spaces, conservation areas, sports grounds and other areas associated with public recreational uses.

The primary purposes of the 'Environmental Protection' designation is the preservation and conservation of the natural environment and to protect locally significant wetlands. The Plan states that 'Environmental Protection' areas are important in maintaining the rural character of the County as well as its ecological health by maintaining surface and groundwater quality and quantity, and protecting fish and wildlife habitat. Buildings and structures are prohibited from locating on lands subject to flooding so that building and property damage from floodwaters will be minimized.



The predominant use of land in the 'Environmental Protection' designation is for conservation, forestry, wildlife areas, established agricultural uses and passive recreational functions. More specifically, Section 8.2.2 permits private and /or public utilities including hydro facilities approved by the local Conservation Authority and/or the Ministry of Natural Resources, where suitable location outside the Environmental Protection areas are not feasible.

To the extent practicable, the turbines will be situated outside the Environmental Protection areas however due to turbine spacing requirements, three, and possibly a fourth turbine will be located on lands so zoned. That being stated, the environmental screening report has attested that there will be no negative impacts attributed by the turbines and their accessory facilities.

"The development of electric power facilities shall occur in an orderly manner to facilitate the efficient and reliable provision of adequate electric power. As such, it is the policy of this Plan that electric power facilities are permitted in all land use designations without a Plan amendment provided that the planning of all such facilities is carried out having regard to the other policies of this Plan. Furthermore, Ontario Hydro and any other hydro utility (private or public) shall consult with the municipality on the location of any new electric power facilities."

Due to the approval of the Official Plan prior to the deregulation of the electricity market in May 2002 by the Province of Ontario, in the normal course the County requires Official Plan amendments for private wind energy project on non-Crown lands. An example of this requirement is evident in the Royal Road Wind Farm located some 8 km to the west (i.e. south of Royal Road, east of Simpson Road, west of Lighthall Road and north of Army Reserve Road near Point Petre on Lake Ontario as shown on **Figure 1**). That proposal is for up to twelve 1,800 KW wind turbines on 283 hectares of designated Rural lands. County Council adopted Official Plan Amendment Number 14 (OPA 14) on August 26, 2002 for the Vision Quest wind farm proposed thereon. OPA 14 has been appealed to the Ontario Municipal Board (OMB). The intent of OPA 14 is to insert a new provision within the Rural policies section clarifying that the installation of a privately owned and operated electric power facility (wind farm) is a permitted use. A related zoning amendment application was also approved by Council and appealed to the OMB. To date, neither appeal has been head and it is understood that the project is under new ownership.

4.2.3 County Consolidated Zoning By-law (2006)

The Consolidated ZBL zones the subject site "Environmental Protection" (EP), "Open Space" (OS) and "Environmental Protection – Provincially Significant Wetland" (EP-W) as seen on **Figure 9**. Wind farms and accessory uses are not permitted in these zones.





The Consolidated By-law defines a windmill as "a structure including a tower, nacelle, blades and related appurtenances, designed, erected, and maintained under appropriate qualified supervision, and used for driving a machine such as a pump or mill, or for conversion of wind energy into electricity". A 'windmill facility' (Wind Farm) is defined as three or more windmills.

Wind turbines will not be situated on lands zoned EP-W.

4.2.4 Relationship to the Environmental Assessment Act Requirements for Wind Energy Projects

In Ontario, electricity projects are subject to the Electricity Projects Regulation (Ontario Regulation 116/01) under the Ontario *Environmental Assessment Act* administered by the Ontario Ministry of the Environment (MOE). For wind power, all projects with a nameplate capacity of 2 MW or greater are subject to the Ontario Environmental Screening Process for Electricity Projects, an efficient process specially created to assess the potential impacts of certain electricity projects without undertaking what is termed an "Individual Environmental Assessment" under the Act. The requirements of the Environmental Screening Process are outlined in the *Guide to Environmental Assessment Requirements for Electricity Projects* (MOE 2001).

The proposed Ostrander Point Wind Energy Park would have a capacity exceeding 2 MW, and is therefore subject to the Environmental Screening Process for Electricity Projects. The MOE is responsible for administering the Ontario *Environmental Assessment Act*, but is not obligated to participate in a regulatory or review role for projects following the Environmental Screening Process unless a party takes the opportunity, provided to them under the regulation, to request that the MOE require the completion of a full "Individual Environmental Assessment".

The proposed Project is to be located on Crown land. The MNR provides opportunities for Crown land to be used to develop renewable energy projects, including commercial wind power projects. As a steward for the Crown land, the MNR maintains control of the leasing of Crown land, and approval must be obtained from the MNR before a Crown land lease is executed. As a result, the MNR is a stakeholder in the provincial Environmental Assessment (EA) process for this project.

5.0 CONCLUSIONS

From a land use planning perspective, the proposed wind farm is an appropriate land use for the site and its location and the use is compatible with its surroundings. The location is relatively remote, exhibits few sensitive land uses, no on-site residents and few in proximity. Further, given the size and dimensions of the property, the natural vegetation on and surrounding the site, the turbines will be at least partially masked from many angles and their visual impact substantially diminished.

The basic characteristics of the property in terms of wind regime, physiography, paucity of constraints, and accessibility to the provincial transmission grid make the site eminently suitable for the purpose of electricity generation from wind.

Within the site, the turbine and access roads have been carefully positioned so as to minimize the amount of land actually required and to enable recreational activities such as biking, hiking and birding to continue on site. Because, as wind farm are still relatively new to Ontario, visitors still tend to tour them simply to view and photograph them in operation.

From a land use policy perspective, the Provincial Policy Statement clearly directs that wind plants shall be approved in rural and agricultural areas. In terms of the overall policy direction of the PPS, when read in its entirety, the proposed wind plant has been designed to be consistent with the environmental, agricultural and natural heritage policies of the PPS. Although the lands are not designated rural in the local Official Plan, the lands are in an agricultural and rural community and are therefore considered to be apart of the agricultural/rural system. The proposed wind farm is also demonstrates consistency with the intent of the Official Plan which supports sustainable development through land use developments such as wind energy. The proposed layout is sensitive to on site environmental features and complements the Outdoor Recreation designation. The extent of intrusion into the Environmental Protection designation is minimized. Environmental studies completed to date indicate that the proposed development will not hinder the ecological function of the lands designated Environmental Protection.

Accordingly, it is our opinion that the proposal represents good planning and is consistent with both the PPS 2005 and the County Official Plan. The Province's request for renewable energy proposals is ample evidence of need. Its construction is therefore timely.

All of which is respectfully submitted

J. R. Bousfield F.C.I.P., R.P.P.



APPENDIX 'A'

ONTARIO MNR LETTER





Attention: Brian McComb - Commissioner of Planning Services Prince Edward County

Re: Proposed Wind Power Development on Crown Land at Ostrander's Point, Township of South Marysburgh

The above noted proposal for wind power development by Gilead Power is located on Crown land at Ostrander's Point.

Please be advised that Section 71 of the Legislation Act, 2006 states: No Act or regulation binds Her Majesty or affects Her Majesty's rights or prerogatives unless it expressly states an intention to do so. 2006, c. 21, Sched. F, s. 71.

Since the Planning Act does not expressly bind the Crown, the Planning Act does not apply and thus an Official Plan and zoning by-law amendments would not be required for this application.

However, Section 3(5) of the Planning Act states: A decision of the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board, in respect of the exercise of any authority that affects a planning matter,

- (a) shall be consistent with the policy statements issued under subsection (1) that are in effect on the date of the decision; and
- (b) shall conform with the provincial plans that are in effect on that date, or shall not conflict with them, as the case may be. 2006, c. 23, s. 5.

The proposed development of this wind farm and any related infrastructure are also subject to the Electricity Projects Regulation 116/01 under the Environmental Assessment Act. They must complete thorough public, agency and aboriginal consultation and satisfy the Environmental Assessment Act requirements.

Should you require further information, please feel free to contact this office.

Yours Truly, Bur -

Bryan Sears Water Resources Coordinator Peterborough District Tel: 613-531-5735 Fax: 613-531-5730 E-mail: bryan.sears@ontario.ca

c.c. Jo-Anne Egan - Manager of Planning, Prince Edward County

- c.c. Amanda Danto, M.PL. Planner Bousfields Inc.

c.c. Mike Lord - Gilead Power

JULY, 2008

APPENDIX 'B'

EXCERPTS OF NOISE IMPACT STUDY by JACQUES WHITFORD CONSULTANTS

4.0 RESULTS

The acoustic models predict that all points of reception meet the applicable MOE limits (i.e., below 40, 43, and 45 dBA) for the three modelled wind turbine operating conditions (6, 7, and 8 m/s respectively). The model results are summarised in Table 4 and Table 5. Figure 2 and Figure 3 show sound level contours for the worst-case 8 m/s wind speed for the two turbine options. These plots highlight the sound propagation patterns around the proposed wind farm.

| Receptor | Coordinates | | | 1-Hour Predicted Sound Pressure Levels at 3 Wind Speeds | | |
|----------|-------------|---------|-----|--|-------|--------|
| ID | x | Y | Z | 6 m/s | 7 m/s | 8 m/s* |
| | (m) | (m) | (m) | (dBA) | (dBA) | (dBA) |
| POR1 | 341222 | 4862724 | 4.5 | 30 | 31 | 31 |
| POR2 | 339821 | 4864457 | 4.5 | 31 | 32 | 32 |
| POR3 | 337449 | 4862785 | 4.4 | 30 | 31 | 31 |

Table 4: Predicted Sound Pressure Levels for GE sle1.5 MW System

* Turbine sound power levels are constant above 7 m/s per the GE specifications.

Table 5: Predicted Sound Pressure Levels for Vestas 1.65 MW System

| Receptor | Coordinates | | | 1-Hour Predicted Sound Pressure Levels at 3 Wind Speeds | | |
|----------|-------------|---------|-----|--|-------|--------|
| ID | Х | Y | Z | 6 m/s | 7 m/s | 8 m/s* |
| | (m) | (m) | (m) | (dBA) | (dBA) | (dBA) |
| POR1 | 341222 | 4862724 | 4.5 | 28 | 28 | 29 |
| POR2 | 339821 | 4864457 | 4.5 | 29 | 29 | 31 |
| POR3 | 337449 | 4862785 | 4.5 | 27 | 27 | 29 |

* No turbine sound power levels were available above 8.8 m/s per the Vestas specifications. Sound levels are assumed to be near constant above these wind speeds.





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