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OSTRANDER POINT WIND ENERGY PARK GILEAD POWER'S RESPONSES TO STAKEHOLDER COMMENTS

The comments and information below are a summary of Gilead Power's responses to the more common subjects posed by stakeholders in relation to the Ostrander Point Wind Energy Park (Project).

Voluntary Elevation / Environmental Review Report

In response to the more detailed studies and assessment being undertaken for the Project, Gilead has voluntarily elevated the Environmental Screening Report to an Environmental Review Report (ERR). The ERR will be prepared in accordance with the Ontario Ministry of the Environment's "Guide to Environmental Assessment requirements for Electricity Projects", under Regulation 116/01 of the *Environmental Assessment Act* (the EA Guide is available from your local MOE office, the Project website, or at www.ene.gov.on.ca/envision/gp/4021e.pdf). The ERR will be a comprehensive document that will include multiple separate technical studies. Gilead believes an ERR is the appropriate level of assessment for this renewable energy initiative.

Stakeholder Consultation and Review

Gilead has and will continue to undertake an extensive stakeholder consultation process throughout the duration of the Project. The transparency of the Environmental Screening Process will be achieved by the utilization of several tools used to solicit and respond to stakeholder input. These tools include public open houses, direct and mass mailings, newspaper notices, individual and group meetings, the Project website, and email correspondence and telephone discussions with stakeholders, among others. The work done in this regard will be included within the ERR and captured in the record of consultation.

Gilead will be organizing a second Public Open House for the Project, to be held in late summer 2008 to allow seasonal residents the opportunity to provide input. With respect to the ERR, Gilead will be proactive by voluntarily releasing the Draft ERR for stakeholder review and comment in the fourth quarter of 2008. Building upon the input received on the Draft ERR, Gilead will work to address all stakeholder comments received and engage all levels of government in order to ensure that the Project is planned in accordance with all regulatory requirements.

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Natural Environment

The ERR will also document other aspects of the natural environment, such as, terrestrial and wetland flora and fauna. With respect to queries on environmental changes and potential effects, as part of the Environmental Screening Process, work will be done in advance of construction to document baseline environmental conditions.

We are aware that the Project is located in an important area for birds and other wildlife. During the course of the Project we will continue to accumulate both primary and secondary information on this subject. This will ensure we evaluate the potential environmental effects of the Project and ensure that the environmental benefits of the Project are maximized. Throughout the Environmental Screening Process we will work with government agencies, local wildlife groups, residents, and other stakeholders to obtain additional information which will be included in the ERR.

In addition to completing a detailed review of previous studies conducted in the area, bird surveys have and will continue to be conducted. We also continue to work with municipal, provincial, and federal government agencies, such as the Ontario Ministry of Natural Resources, Environment Canada, and the Canadian Wildlife Service, to ensure that our data collection and analysis methodologies adhere to relevant and current protocols, policies, and legislation.

Gilead is sponsoring a joint study conducted by Environment Canada and Acadia University to monitor spring and fall nocturnal bat and bird migration in the vicinity of the Study Area using radar equipment.

The study has been designed to distinguish birds from bats during the fall migration period through the use of an acoustic monitoring device in conjunction with radar devices. Following lengthy discussions with MNR and Environment Canada (Canadian Wildlife Service) officials, Gilead's consultants developed detailed protocols to ensure that the study satisfies regulatory requirements. The final results of bird, bat and other wildlife studies will be presented in the ERR.

Impact Assessment

Potential environmental effects as a result of the construction, operation, and decommissioning phases of this renewable energy initiative will be assessed through a rigorous net effects analysis that considers public, government, and First Nations input. The analysis will involve the completion of numerous baseline and technical studies, including those related to birds. The final results of these activities will be presented in the ERR.



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Visual Change

A Visual Change Assessment will be conducted to identify the changes to the viewscape. The assessment will model the appearance of the wind turbines from various vantage points throughout the surrounding area.

With regard to the turbines themselves, while maintaining compliance with Transport Canada regulations, the colour of wind turbines will be white/off-white – a colour which has been found to minimize contrast with the background sky – and to the extent possible Gilead will minimize the number of turbines requiring aviation safety lights. Gilead will also utilize light emitting diode (LED) lights, which have a softer glow and less of a strobing effect in comparison to traditional Xenon lights.

Tower Lighting

Transport Canada will require that the turbines are fitted with lights for aviation safety. To the extent possible, Gilead will minimize the number of turbines requiring aviation safety lights, while adhering to the Transport Canada guidelines. Gilead will also utilize LED lights, which have a softer glow and less of a strobing effect in comparison to traditional Xenon lights.

Property Values

Based upon the data reviewed to date in other areas with established wind farms (e.g., Canada, USA, Europe, and Australia), no evidence of a material negative effect on property value as a result of the presence of wind farms has been documented. Furthermore, some Ontario data suggests that wind farms have a neutral or positive effect on property values. Based upon the results of the literature review, which included both international and Canadian studies, no material adverse effects to property values within the Study Area are anticipated as a result of the Project. Further research will be undertaken as part of the Socio-Economic Assessment (SEA) commissioned by Gilead.

Tourism

Gilead will study the potential effects of the Project on the tourism industry in Prince Edward County as part of the SEA it has commissioned for the Project. The study will be included as part of the ERR.

Economic Benefits and Renewable Energy

The Environmental Screening Process will determine in more detail the specific economic benefits of the Project; however, the following benefits to the local economy can be anticipated:

- Increased employment is expected for the local area during the Construction Phase;
- Use of local goods and services during the Construction Phase of the Project;
- An increase to the local tax base from annual municipal property tax while limited to no increased demand on local services such as garbage collection and water/wastewater service; and,
- Additional revenue to the Province through land lease payments made by the Project.

Wind energy will continue to be an increasingly significant component of the power supply mix for Ontario. The need for increased power supply to Ontario, preferably clean, renewable power is well documented. As part of the overall electricity supply and management mix for Ontario, the government (specifically through the Ontario Ministry of Energy and Ontario Power Authority) has outlined three broad policy priorities:

- Preference for renewable sources of energy;
- Creation of a conservation culture; and,
- The replacement of coal-fired generation in the earliest possible time frame for environmental and health reasons.

Ontario currently has approximately 30,000 megawatts (MW) of electricity generating capacity, but many existing power facilities are aging, and 80 per cent will need to be refurbished or replaced over the next 20 years (Ontario Power Authority, 2005). The capital expenditures required for this is on the order of \$70 billion. In addition, the OPA estimates that demand will begin to exceed available supply by 2014. By 2025, the Ontario Power Authority (OPA) estimates the energy gap will be about 10,000 MW if no new generation has been added (OPA, 2005).

The OPA also reviewed Ontario's energy options and made recommendations to the government on the future energy supply mix in its December 2005 Supply Mix Advice Report. Following its review of this report, in June 2006 the Ministry of Energy directed the OPA to proceed with its recommended 20-year electricity supply mix plan that specifies a movement away from coal in favour of new nuclear power and renewable energy. As part of the plan, the government of Ontario has set targets that will double energy efficiency through conservation and double the amount of energy from renewables (bringing the total to 15,700 MW) by 2025 (OPA, 2005).

Setbacks and Turbine Siting

Siting wind turbines and other Project infrastructure is a complex process that involves many factors and variables. Environmental and social constraints such as the presence of residences, roads, wetlands, watercourses, and woodlots are key factors in siting Project infrastructure. Consistent with the principles of

avoidance, setbacks will be established to ensure that environmental and social constraint areas will be avoided to the greatest extent possible. Where appropriate and necessary, the Project design will be revised to mitigate any identified issues. Where Project siting and design can not solely address potential environmental effects, protection and mitigation measures and rehabilitation measures will be applied. Final turbine setbacks will be provided within the Draft ERR.

Environmental Noise

An Environmental Noise Impact Assessment (“ENIA”) will be finalised for the Project and submitted to the Ontario Ministry of the Environment (MOE) for technical review and comment, and will be contained in the publicly available ERR. As part of this assessment a baseline ambient noise survey will be conducted within the Project area to substantiate the regulatory sound level limit requirements for the Project. The noise data collected during the monitoring period will be used to compare the existing ambient noise levels to the sound level limit requirements as defined in the MOE’s *Interpretation for Applying MOE NPC Technical Publications to Wind Turbine Generators (06 July 2004)*.

The MOE designates “Points of Reception” into one of three acoustic environment classes: Class 1, 2, or 3. Class 1 areas are highly urbanized in nature, while Class 3 are rural with smaller populations. Class 2 areas lie between these two.

The MOE noise guidelines for wind turbines, to which the Project must adhere, are most stringent for Class 3 receptors. We expect that most receptors in the Study Area will be identified as Class 3, reflecting the generally quiet nature of the area. Therefore, Gilead will be adhering to the most stringent requirements during the operation of the wind plant.

The noise modeling work will be used to determine the specific setbacks of the turbines from receptors for the purposes of noise.

Health Effects

Throughout the Environmental Screening Process, Gilead will solicit comments from health-related government agencies and organizations. As with any member of the public, where an agency or organization expresses an interest in the Project, Gilead will add them to the Project mailing list, keep them apprised of Project activities and address their comments.

With respect to what is commonly cited to as “Wind Turbine Syndrome”, Stantec has sought available information through a variety of official sources, several of which were international, national and provincial government health agencies and departments. This included the World Health Organization, the American

Medical Association, the Canadian Medical Association, Health Canada, the Public Health Agency of Canada, and the Canadian Institutes of Health Research.

As a result of these efforts, we note that there was considerable uncertainty concerning recognition of Wind Turbine Syndrome and these organizations were unable to provide information about the subject or any evidence of wind turbines causing human health impacts. In the course of reviewing this subject, we were unable to locate any credible scientific evidence, such as a peer reviewed medical journal paper, to confirm that living within the proposed proximity to wind turbines may cause adverse health impacts. Additional information regarding public health and safety will be included in the ERR.

Regarding the potential for ice shed from turbines, a study conducted by Colin Morgan, Ervin Bossanyi, and Henry Siefert (1998) entitled "Assessment of Safety Risks Arising from Wind Turbine Icing" noted that there has been no reported injury from ice shed from wind turbines, despite the installation of more than 6,000 MW of wind energy worldwide.

Shadow Flicker

The strobe-like flicker associated with sunlight passing through rotating turbine blades is called "Shadow flicker" or "Shadow casting". Shadow casting is generally not regulated in Canada by planning authorities. Shadow flicker values can be considerably reduced when the following three factors are taken into consideration:

- presence of trees, high vegetation, or other obstacles between house and turbines
- periods of low or high wind speed (i.e., below approximately 4 m/s or above approximately 25 m/s, respectively), during which turbines will not be operational
- the directional orientation of the wind turbines in relation to the sun

A Shadow Flicker Assessment will be completed for the Project and its results will be presented in the ERR. It is anticipated that shadow flicker occurrence at residences located near the turbines will not be significant.

Road Conditions

Within the Study Area, intersections and portions of roads may require improvements to accommodate the turning radius of the trucks carrying the tower, nacelle and blades, or upgrading in order to accommodate the equipment and loads being moved. Gilead will be responsible for acquiring the necessary permits and will conduct any temporary or permanent road widening or upgrading activities in accordance with Prince Edward

County requirements. All temporary roads will be restored to their pre-construction conditions following completion of construction. Roads will be monitored during construction to ensure no erosion, bank slumpage, road subsidence, or major rutting has occurred as a result of construction activities. As appropriate, affected roadside ditches and drains will be revegetated if required and monitored to ensure that they are functioning properly.

Monitoring and Follow-up Measures

A comprehensive post-construction monitoring program will be developed in consultation with Canadian Wildlife Services, Environment Canada, and the Ministry of Natural Resources. This program is expected to include monitoring for both mortality and disturbance effects to birds and bats. Mortality surveys will be designed to ensure that removal of carcasses by predators and searcher efficiency values are fully accounted for, as outlined in Environment Canada's "Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds". As required, post-construction monitoring and follow-up measures will include additional programs, plans, and procedures for subjects such as occupational health and safety and emergency response.

Erection of Turbines

A determination with respect to the equipment required for the construction of the Project will be finalized during the detailed design stage of the Project and may be included within the ERR.

With respect to the wind turbines, typically the tower will be delivered to the site in three sections and assembled using a moderate-lift wheeled crane for the bottom two sections and heavy-lift crawler crane to erect the third tower section.

The nacelle arrives on-site assembled and is lifted into place by the heavy-lift crane. The rotor consists of a hub and the three blades, and is hoisted into place in one piece by up to three cranes: a large crawler crane does the heavy lifting, while smaller tailing cranes stabilize the component as it is being lifted.

The blades, nacelle, and tower sections will be delivered to the turbine sites on oversize vehicles of sufficient length to carry the respective sections. The crawler cranes due to their size and weight will be shipped in individual pieces and then assembled on-site.



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Turbine Layout

The current turbine layout is preliminary. During the course of the Project, we will be accumulating both primary and secondary data on a variety of subjects from birds and wildlife, to environmental noise, engineering, and socio-economic considerations. Building upon and incorporating this data collected over the course of the Project, the turbine layout may be revised to reflect any new considerations that may arise from this new information. The ERR will document the Project's turbine layout.

Land Use

Once the Project has been constructed and enters the operational phase, residents can continue to enjoy the area as they have done in the past.

Collector Power Lines

The electricity produced by the turbines will be connected to the proposed Ostrander Point Substation via an on-site collection system of 13.5 kV lines. Further work will be conducted to determine whether these lines will be located above or below ground. The 44 kV transmission line proposed to connect the Project's substation (to be located near the turbines) to the Milford Distribution Station is currently proposed as a road pole line, similar to the existing distribution lines within the area. The final configuration of these collector lines and the main transmission line will be evaluated and described within the ERR.