

Environmental Assessment Approval

Approval Date: *Original Dated March 16, 2012*

Glen Dhu South Wind Power Project Shear Wind Inc., Proponent

Barney's River, Pictou County, Nova Scotia

The Glen Dhu South Wind Power Project (the "Undertaking"), proposed by Shear Wind Inc. (the "Approval Holder") in Barney's River, Pictou County, Nova Scotia is approved pursuant to Section 40 of the *Environment Act* and Section 13(1)(b) of the *Environmental Assessment Regulations*. This Approval is subject to the following conditions and obtaining all other necessary approvals, permits or authorizations required by municipal, provincial and federal acts, regulations and by-laws before commencing work on the Undertaking. It is the responsibility of the Approval Holder to ensure that all such approvals, permits or authorizations are obtained before commencing work on the Undertaking.

This Environmental Assessment Approval is based upon the review of the conceptual design, environmental baseline information, impact predictions, and mitigation presented in the Registration Document.

Terms and Conditions for Environmental Assessment Approval

1.0 General Approval

- 1.1 The Environmental Assessment Approval for the Undertaking is limited to the Undertaking as described in the Environmental Assessment Registration Document in Figure 14: Revised Turbine Layout (3MW up to 50MW), and Figure 15: Revised Turbine Layout (3MW up to 80MW).
- 1.2 The Environmental Assessment Approval for the Undertaking is limited to the Undertaking as described in the Registration Document excluding turbines 28 and 31 in their proposed locations. Relocation of these turbines will require consultation with Nova Scotia Department of Natural Resources' (NSDNR) Wildlife Division regarding wildlife connectivity and Nova Scotia Environment (NSE) regarding noise, setbacks, and shadow flicker. Final locations must be approved by NSE.
- 1.3 Expansion, modification or relocation of any aspect of the undertaking from that proposed in the registration information must be submitted to the Environmental Assessment Branch for review and may require an environmental assessment.
- 1.4 The Approval Holder must, within two years of the date of issuance of this

Approval, commence work on the Undertaking unless granted a written extension by the Minister.

- 1.5 The Approval Holder must not transfer, sell, lease, assign or otherwise dispose of this Approval without the written consent of the Minister. The sale of a controlling interest of a business or a transfer of an approval from a parent company to a subsidiary or an affiliate is deemed to be a transfer requiring consent.
- 1.6 The Approval Holder must implement all mitigation and commitments in the Registration Document, unless approved otherwise by NSE.
- 1.7 The Approval Holder must provide a report to NSE's Environmental Assessment Branch one year following construction of the Undertaking. The report must include, but not be limited to, site development, mitigation plans, monitoring results, and compliance with the Terms and Conditions of the Environmental Assessment Approval.

2.0 Flora and Fauna

- 2.1 Prior to clearing and construction, the Approval Holder must consult with NSDNR's Wildlife Division and NSE to discuss specific turbine locations, and the location of the substation. Final locations must be approved by NSE.
- 2.2 Prior to construction, the Approval Holder must provide NSDNR's Regional Services and Wildlife Division staff with digital way point files revealing precise locations for all "RED", "YELLOW" and "UNDETERMINED" listed species identified during field work within the area proposed for development. The Approval Holder must report to NSE that the files have been provided to NSDNR.
- 2.3 Prior to clearing and construction, the Approval Holder must develop a program to monitor Mainland Moose with all data and results to a standard as defined by NSDNR's Wildlife Division. The Approval Holder must provide monitoring details in an annual report submitted by January 15 in each year to NSE, NSDNR and Environment Canada, unless otherwise approved by NSE.
- 2.4 Prior to construction, the Approval Holder must agree to collaborate in research within the project area and with other wind projects on the Cobequid Mountains, where possible, to understand impacts on habitat and its suitability for Mainland Moose. The associated reporting requirements must be developed to the standards as determined by NSDNR's Wildlife Division.
- 2.5 Prior to construction, the Approval Holder must prepare and implement a plan for managing access to the project site, where possible, recognizing that access has been implicated in Mainland Moose declines.

- 2.6 Prior to clearing and construction, the Approval Holder must develop and implement a program to monitor for birds and bats. The monitoring program and associated reporting requirements must be developed to the standards as determined by the NSDNR's Wildlife Division and Canadian Wildlife Service (CWS). Based on the results of bird and bat monitoring, the Approval Holder must make necessary modifications to mitigation plans, and/or wind farm operations, to the satisfaction of NSE. The Approval Holder must provide details in an annual report submitted by January 15 in each year to NSE, NSDNR's Wildlife Division and Environment Canada, unless otherwise approved by NSE.
- 2.7 The Approval Holder must undertake mortality monitoring and other work that maybe deemed necessary from time to time based on unforeseen events and surrender all specimens from such work to the Canadian Cooperative Wildlife Health Centre for necroscopy.
- 2.8 If site preparation activities occur between April 1 and August 31 (breeding season for most birds) the Proponent must prepare and implement a monitoring and mitigation plan for breeding activity (i.e. nesting) in consultation with NSDNR's Wildlife Division and CWS.

3.0 Noise and Visual Impact

- 3.1 Prior to clearing and construction, the Approval Holder must provide sound modelling; a visual zone of influence/photomontage; shadow flicker assessment; and any other information requested for the final turbine selection (3MW) to NSE for review and approval.
- 3.2 The Approval Holder must monitor noise, at the request of, and to the satisfaction of NSE. Based on the results of the monitoring program, the Approval Holder may be required to make necessary modifications to mitigation plans and/or wind farm operations to reduce the noise level to an acceptable level.
- 3.3 The Approval Holder must develop a plan to monitor shadow flicker, at the request of, and to the satisfaction of NSE. Based on the results of the monitoring program, the Approval Holder must make necessary modifications to mitigation plans and/or wind farm operations to prevent any unacceptable environmental effects to the satisfaction of NSE.
- 3.4 The Approval Holder must develop a turbine lighting plan in consultation with CWS and Transport Canada.

4.0 Ground and Surface Water Resources

- 4.1 The Approval Holder must not blast, unless otherwise approved by NSE.

- 4.2 The Approval Holder must conduct visual assessments, both quarterly and after severe storms events, of the site to ensure the effectiveness of erosion and sedimentation controls, unless otherwise approved by NSE. Results of the assessment must be submitted, at a frequency to be determined, to NSE as part of the Environmental Protection Plan (EPP).
- 4.3 The Approval Holder must not construct a turbine within 30m of a wetland or watercourse, unless otherwise approved by NSE.
- 4.4 The Approval Holder must obtain an approval from NSE for the construction of watercourse crossings and/or wetland alterations, as specified in the *Activities Designation Regulations*.

5.0 Consultation

- 5.1 Prior to clearing and construction, the Approval Holder must develop a complaint resolution plan to address all concerns associated with the project. The Approval Holder must appoint a contact person designated to deal with complaints, and must provide the contact information to NSE.

6.0 First Nation and Aboriginal Engagement

- 6.1 The Approval Holder must provide details and seek input on any further archaeological work on site with the Kwilmu'kw Maw-klusuaqn (KMKNO).
- 6.2 The Approval Holder must provide to the KMKNO further information on the mitigation and/or avoidance measures planned for any Mi'kmaq resources identified in the project area.
- 6.3 The Approval Holder must share plans for monitoring and research associated with the Mainland Moose with interested Aboriginal Groups.

7.0 Archaeological and Heritage Resources/ Aboriginal Interests

- 7.1 Prior to clearing and construction, the Approval Holder must submit a heritage research permit report that meets the terms and conditions set out under the *Special Places Protection Act*, to the Nova Scotia Department of Communities, Culture and Heritage for review and approval.
- 7.2 Prior to clearing and construction, the Approval Holder must submit a report addressing palaeontology, including an up-to-date geological map with references, and a list of possible fossils they will encounter, to the Nova Scotia Department of Communities, Culture and Heritage. Should fossil resources be encountered during the course of the project, contact must be made with the Coordinator, Special Places.
- 7.3 The Approval Holder must cease work and contact the Coordinator, Special Places, Nova Scotia Department of Communities, Culture and Heritage

immediately upon discovery of an archaeological site or artifact unearthed during any phase of the proposed Undertaking. If the find is of certain or suspected Mi'kmaq origin, the Approval Holder must also contact the Executive Director of the KMKNO.

8.0 Environmental Management System

- 8.1 Prior to construction, the Approval Holder must provide for review and approval to NSE, the following information:
- a) An Environmental Protection Plan (EPP) for the construction, operation and maintenance of the Undertaking. The EPP must include, but not be limited to:
 - i) details of erosion and sedimentation control plans,
 - ii) a monitoring program for surface waters
 - iii) a plan to deal with sulphide bearing materials and acid drainage
 - iv) a contingency plan to address accidents that includes spill response procedures, fires, emergency contacts, and staff training.
 - b) The locations and construction details for proposed new roads, turbines and associated infrastructure, and any other such information as required by NSE.
- 8.2 The Approval Holder must adhere to the EPP once finalized and accepted by NSE. Construction work can only commence upon receiving NSE approval for the EPP.

9.0 Site Reclamation

- 9.1 The Approval Holder must submit a decommissioning and site reclamation plan to NSE for review and approval, two years prior to the end date of the Power Purchase Agreement. The Approval Holder must reclaim the site to the satisfaction of NSE.

Original Signed By

Sterling Belliveau
Minister of Environment