

Environmental Assessment Approval

Approval Date: APR 03 2013

**Barrington Wind Farm
Watts Wind Energy Inc.**

Atwoods Brook, Shelburne County, Nova Scotia

The Barrington Wind Farm (the "Undertaking"), proposed by Watts Wind Energy Inc. (the "Approval Holder") in Atwoods Brook, Shelburne 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.
- 1.2 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 (EA).
- 1.3 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.
- 1.4 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.

- 1.5 The Approval Holder must implement all mitigation and commitments in the Registration Document, unless approved otherwise by Nova Scotia Environment (NSE).
- 1.6 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/or construction, the Approval Holder must submit an additional Mainland Moose inventory to NSE and the Department of Natural Resources (DNR) for final review and consideration of potential risks.
- 2.2 The Approval Holder must provide information to, and educate, employees regarding Wood turtles and Blandings turtles. The Approval Holder must notify DNR if Wood turtles and/or Blandings turtles are encountered.
- 2.3 Prior to clearing and/or construction, the Approval Holder must consult with DNR and NSE to discuss specific turbine locations, and the location of the substation and associated infrastructure. Final locations must be approved by NSE and provided in a digital format as specified by NSE.
- 2.4 Prior to clearing and/or construction, the Approval Holder must develop and implement a program to survey for Boreal Felt Lichen and raptor nests, in consultation with and to a standard as defined by DNR. Based on this information, further studies may be required at the request of NSE.
- 2.5 Prior to clearing and/or construction, the Approval Holder must provide DNR'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 DNR.
- 2.6 Prior to clearing and/or construction, the Approval Holder must develop and implement a program to monitor for birds, bats and Mainland Moose. The monitoring program and associated reporting requirements must be developed to the standards as defined by DNR and the Canadian Wildlife Service (CWS). The Approval Holder must provide details in an annual report submitted by January 15th of each year to NSE, DNR and CWS, unless otherwise approved by NSE. Based on the results of the monitoring, the Approval Holder must make necessary modifications to mitigation plans, and/or wind farm operations, to the satisfaction of NSE.
- 2.7 The Approval Holder must undertake mortality monitoring and other work

that may be 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 Site preparations that include deforestation, clearing and grubbing must be undertaken between September 1st and March 30th in order to minimize impacts on breeding birds that may include endangered and threatened species listed under the *Species at Risk Act* and/or the *Nova Scotia Endangered Species Act*, unless otherwise approved by NSE.
- 2.9 No site preparation activities are to occur between April 1st and mid-July.
- 2.10 If site preparation activities occur between mid-July and August 31st, the Approval Holder must prepare and implement a monitoring and mitigation plan for breeding activity (i.e. nesting) in consultation with DNR and the CWS.

3.0 Noise and Visual Impact

- 3.1 Prior to clearing and/or construction, the Approval Holder must provide the model input parameters utilized in predicting future operational noise levels to Health Canada.
- 3.2 Prior to clearing and/or construction, the Approval Holder must provide sound modelling; shadow flicker assessment; and any other information requested for the final turbine selection to NSE for review and approval.
- 3.3 The Approval Holder must monitor noise, at the request of, and to the satisfaction of NSE under varying climatic conditions in order to ensure that noise levels do not exceed 40 dBA. Based on the results of the monitoring program, the Approval Holder must make necessary modifications to mitigation plans and/or wind farm operations to reduce the noise level to 40 dBA or lower.
- 3.4 The Approval Holder must develop a plan to monitor shadow flicker, at the request of, and to the satisfaction of NSE (does not exceed 30 minutes per day or 30 hours per year at any receptor). 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.
- 3.5 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 Prior to clearing and/or construction, the Approval Holder must conduct a

wetland boundary delineation study. The study results must be provided to and evaluated by NSE and DNR. The final alignment of the road must be approved by NSE.

- 4.2 The Approval Holder must not construct a turbine within 30 m of a wetland or watercourse (measured from the tip of the blade), unless otherwise approved by NSE.
- 4.3 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.
- 4.4 Prior to any blasting, the Approval Holder must conduct a pre-blast survey for water wells within 800 m of the point of blast. The survey must be conducted in accordance with the NSE "Procedure for Conducting a Pre-Blast Survey". Any water well impacts from the blasting must be corrected by the Approval Holder to the satisfaction of NSE.
- 4.5 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).

5.0 Consultation

- 5.1 At the request of NSE, the Approval Holder must develop and implement a plan for the formation and operation of a Community Liaison Committee (CLC), including terms of reference. The Approval Holder must operate the CLC for the duration of the Undertaking and until released in writing by NSE. The NSE Guidelines for the Formation of a Community Liaison Committee shall be used for guidance.
- 5.2 The Approval Holder must develop a complaint resolution plan to address all concerns associated with the Undertaking. 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 If additional evidence of moose population is identified through additional field work, the Approval Holder must inform Acadia First Nation and the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO).
- 6.2 At the request of NSE, the Approval Holder must develop a plan to engage the Mi'kmaq of Nova Scotia, to discuss any impacts on traditional Mi'kmaq resources, and to clarify activities of the Undertaking and identify associated mitigation measures.

- 6.3 If a CLC is created, the Approval Holder must invite a Mi'kmaq representative from the community in closest proximity to the Undertaking to participate.

7.0 Archaeological and Heritage Resources/ Aboriginal Interests

- 7.1 Prior to clearing and/or construction, and at the request of NSE, the Approval Holder must develop and implement an archaeological reconnaissance program to ensure no archaeological resources will be impacted during site development. The archaeological reconnaissance program will be developed in consultation with and to a standard as defined by Nova Scotia Department of Communities, Culture and Heritage.
- 7.2 The Approval Holder must cease work and contact the Special Places Coordinator, 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 clearing and /or construction, the Approval Holder must provide for review and approval to NSE, the following information:
- a) An 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 Radar/Radio Interference

- 9.1 This Approval is conditional on NAV CANADA and Department of National Defence (DND) providing their acceptance of the Undertaking. Prior to construction, the Approval Holder must obtain written consent from NAV

CANADA and DND demonstrating the final site plan is acceptable to both parties and does not interfere with radar communications.

- 9.2 Telecommunication reception affected by the wind farm must be corrected by the Approval Holder to the satisfaction of NSE.

10.0 Site Reclamation

- 10.1 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.
- 10.2 The Approval Holder must decommission wind turbines to restore habitat. In the event any turbine ceases to be operational for a period of two years, the Approval Holder must submit a report to NSE outlining a time-line for reparation to the unit(s) to either render it fully functional or provide similar details for removing the turbine from the site within two years from when the report was received.



Sterling Belliveau
Minister of Environment