

RENEWABLE ENERGY APPROVAL

NUMBER 6250-8KFTCQ
Issue Date: October 31, 2011

Zephyr Farms Limited
2700 Matheson Boulevard East
Suite 300, West Tower
Mississauga, Ontario
L4W 4V9

Project: Brooke-Alvinston Wind Farm
Location: Ebenezer Road and Churchill Line
Con 14 S pt Lot 13 S ½ Lot 13, Con 14 S pt Lot 14, Con 14 N pt Lot 15 pt W ¾ of N ¾ of Lot 15
Municipality of Brooke-Alvinston, County of Lambton
NON 1A0

You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 4 wind facility consisting of the following:

- the construction, installation, operation, use and retiring of:

- (a) four (4) wind turbine generators each rated at 2.5 megawatts (MW) generating output capacity with a total name plate capacity of 10 MW, designated as source ID Nos. T 1, T 2, T 3 and T 4, each with a hub height of 80 metres above grade and sited at the locations shown in Schedule A, and as indicated in the supporting information submitted with the application; and
- (b) associated ancillary equipment, systems and technologies including on-site access roads, electrical switching stations, and underground cabling to connect the switching stations to overhead distribution lines,

all in accordance with the application for a Renewable Energy Approval dated February 25, 2011, and signed by John Cobb, President of Green Breeze Energy Inc. on behalf of Zephyr Farms Limited and One-World Energy Limited, and all supporting documentation submitted with the application, including amended documentation submitted up to July 29, 2011.

For the purpose of this renewable energy approval, the following definitions apply:

- (1) "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;
- (2) "Adverse Effect" has the same meaning as in the Act;
- (3) "Application" means the application for a Renewable Energy Approval dated February 25, 2011, and signed by John Cobb, President of Green Breeze Energy Inc. on behalf of Zephyr Farms Limited and One-World Energy Limited, and all supporting documentation submitted with the application, including amended documentation submitted up to July 29, 2011;
- (4) "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
- (5) "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) 61672 and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";
- (6) "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
- (7) "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";
- (8) "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
 - (a) sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);
 - (b) low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
 - (c) no clearly audible sound from Stationary Sources other than from those under impact assessment.
- (9) "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
 - (a) a small community with less than 1000 population;
 - (b) agricultural area;
 - (c) a rural recreational area such as a cottage or a resort area; or

- (d) a wilderness area.
- (10) "Company" means Zephyr Farms Limited, and includes its successors and assignees;
- (11) "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
- (12) "Director" means a person appointed in writing by the Minister of the Environment pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;
- (13) "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
- (14) "Equipment" means the four (4) wind turbine generators and associated ancillary equipment identified in this Approval and as further described in the Application, to the extent approved by this Approval;
- (15) "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted L_{eq} and is measured in dB A-weighting (dBA);
- (16) "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;
- (17) "International Standard IEC 61400-11" means the International Electrotechnical Commission (IEC) standard for Wind turbine generator systems - Part 11: Acoustic noise measurement techniques;
- (18) "Ministry" means the Ontario Ministry of the Environment;
- (19) "Noise Guidelines for Wind Farms" means the Ministry document entitled, *Noise Guidelines for Wind Farms - Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities*, dated October 2008;
- (20) "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
- (21) "Point of Reception" has the same meaning as in the Noise Guidelines for Wind Farms and is subject to the same qualifications described in that document;
- (22) "Sound Level" means the A-weighted, Sound Pressure Level;
- (23) "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted

Equivalent Sound Level denoted as L_{eq} ;

- (24) "Sound Power Level" is ten times the logarithm to the base of 10 of the ratio of the instantaneous sound power (acoustic energy) watts of a noise source to a standard reference power W_0 of 1×10^{-12} Watts. The sound power level in dB is: $PWL = 10 \log_{10} W/W_0$
- (25) "Sound Pressure" means the instantaneous difference between the actual pressure and the average or barometric pressure at a given location. The unit of measurement is the micro pascal (μPa);
- (26) "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (μPa) of a sound to the reference pressure of $20 \mu Pa$; and
- (27) "UTM" means Universal Transverse Mercator coordinate system.

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

GENERAL

- 1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application.
- 2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.
- 3. The Company shall ensure a copy of this Approval is:
 - (1) accessible, at all times, by Company staff operating the Facility and;
 - (2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated along with the Application.
- 4. If the Company has a website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.
- 5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.

6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.

EXPIRY OF APPROVAL

7. Construction and installation of the Facility must be completed within two (2) years of the later of:
- (1) the date this Approval is issued; or
 - (2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
8. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition No. 7.

NOISE PERFORMANCE LIMITS

9. The Company shall ensure that:
- (1) the Sound Levels from the Equipment, at the Points of Reception identified in Appendix D of the Noise Impact Assessment Report dated July 4, 2011 and prepared by GL Garrad Hassan, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable, and specifically as stated in the table below:

Wind Speed (m/s) at 10 m height	4	5	6	7	8	9	10
Wind Turbine Sound Level Limits, dBA	40.0	40.0	40.0	43.0	45.0	49.0	51.0

- (2) wind turbine generator ID Nos. T 1, T 2 and T 4 are constructed and installed at either of the following locations:
 - a) at the locations identified in Schedule A of this Approval; or
 - b) at a location that does not vary by more than 10 metres from the locations identified in Schedule A of this Approval and provided that:
 - i) the Equipment will comply with Condition No. 9(1); and
 - ii) all setback prohibitions established under O. Reg. 359/09 are complied with.
 - (3) wind turbine generator ID No. T 3 is constructed and installed at the location identified in Schedule A of this Approval consistent with the Property Line Setback Assessment submitted as part of the Application.
10. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition Nos. 9(2) and 9(3), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the

terms and conditions of the Approval.

11. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by the President of Green Breeze Energy Inc. on behalf of Zephyr Farms Limited and One-World Energy Limited that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition Nos. 9(2) and 9(3).

ACOUSTIC AUDIT

12. The Company shall;
 - (1) carry out an Acoustic Audit to obtain the Sound Power Levels of wind turbine generator ID Nos. T 2 and T 3, in accordance with Part 11 of the International Standard IEC 61400-11 dated 2006 as amended; and
 - (2) submit an Acoustic Audit Report, prepared by an Acoustical Consultant, to the District Manager and the Director not later than six (6) months after the commencement of operation of the Facility or six (6) months after the date of this Approval.

STORMWATER MANAGEMENT

13. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as outlined in the Application.
14. Within six (6) months of completion of construction of the Facility, the Company shall provide the District Manager with a written description of post-construction stormwater management conditions.

WATER TAKING ACTIVITIES

15. The Company shall not take more than 50,000 litres of water on any day by any means at the project location during the construction, installation, use, operation, maintenance and retiring of the Facility.

BIRD AND BAT MONITORING

16. The Company shall implement its Environmental Effects Monitoring Plan for Wildlife submitted as part of the Application.
17. If the Company determines that it must deviate from its Environmental Effects Monitoring Plan for Wildlife, the Company shall contact the Planning Ecologist at the Aylmer District Office of the Ministry of Natural Resources and the Director, prior to making any changes to

the methodology in the Environmental Effects Monitoring Plan for Wildlife, and follow any directions provided.

18. The Company shall contact the Planning Ecologist at the Aylmer District Office of the Ministry of Natural Resources and the Director if the mortality thresholds stated in its Environmental Effects Monitoring Plan for Wildlife are reached for either bird or bats.

TRAFFIC MANAGEMENT PLANNING

19. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of Brooke-Alvinston.
20. Within three (3) months of having provided the Traffic Management Plan to the Municipality of Brooke-Alvinston, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality of Brooke-Alvinston.
21. If a Road Users Agreement has not been signed with the Municipality of Brooke-Alvinston within three (3) months of having provided the Traffic Management Plan to the Municipality of Brooke-Alvinston, the Company shall provide a written explanation to the Director as to why this has not occurred.

ARCHAEOLOGICAL RESOURCES

22. If archaeological resources are discovered, the Company shall immediately contact any authorities it is legally obligated to contact, and shall notify the Director as soon as reasonably possible.

OPERATION AND MAINTENANCE

23. Before construction and installation of the Equipment, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:
 - (1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
 - (2) emergency procedures;
 - (3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
 - (4) all appropriate measures to minimize noise emissions from the Equipment.
24. The Company shall;
 - (1) update as required the manual described in Condition No. 23; and
 - (2) make the manual described in Condition No. 23 available for review by staff of the

Ministry upon request.

25. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition No. 23.

RECORD CREATION AND RETENTION

26. The Company shall create written records consisting of the following:
- (1) an operations log summarizing the operation and maintenance activities of the Facility;
 - (2) within the operations log, a summary of routine and Ministry staff inspections of the Facility; and
 - (3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.
27. A record described under Condition No. 26(3) shall include:
- (1) a description of the complaint that includes as a minimum the following:
 - a) the date and time the complaint was made;
 - b) the name, address and contact information of the person who submitted the complaint;
 - (2) a description of each incident to which the complaint relates that includes as a minimum the following:
 - a) the date and time of each incident;
 - b) the duration of each incident;
 - c) the wind speed and direction at the time of each incident;
 - d) the ID of the Equipment involved in each incident and its output at the time of each incident;
 - e) the location of the person who submitted the complaint at the time of each incident; and
 - (3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.
28. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition No. 26, and make these records available for review by staff of the Ministry upon request.

NOTIFICATION OF COMPLAINTS

29. The Company shall notify the District Manager of each complaint within two (2) business

days of the receipt of the complaint.

30. The Company shall provide the District Manager with the written records created under Condition No. 27 within eight (8) business days of the receipt of the complaint.

CHANGE OF OWNERSHIP

31. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:

- (1) the ownership of the Facility;
- (2) the operator of the Facility;
- (3) the address of the Company;
- (4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and
- (5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

SCHEDULE A

Coordinates of the Equipment are listed below in UTM17-NAD83 projection:

Equipment I.D.	Make and Model	Easting (m)	Northing (m)
T 1	Samsung model 25XC	425,609	4,752,769
T 2	Samsung model 25XC	426,024	4,752,730
T 3	Samsung model 25XC	426,859	4,752,760
T 4	Samsung model 25XC	426,320	4,752,340

The reasons for the imposition of these terms and conditions are as follows:

REASONS

1. Condition Nos. 1 and 2 are imposed to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition Nos. 3 and 4 are included to require the Company to provide information to the public and the local municipality.
3. Condition Nos. 5 and 6 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.
4. Condition Nos. 7 and 8 are intended to limit the time period of the Approval.
5. Condition No. 9 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Ministry's Noise Guidelines for Wind Farms.
6. Condition Nos. 10 and 11 are included to ensure that the Equipment is constructed, installed, used, operated, maintained and retired in a way that meets the regulatory setback prohibitions set out in O. Reg. 359/09 under the Act.
7. Condition No. 12 is included to require the Company to gather accurate information so that the environmental noise impact and subsequent compliance with the Act, O. Reg. 359/09, the Noise Guidelines for Wind Farms and this Approval can be verified.
8. Condition Nos. 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.
9. Condition Nos. 23, 24 and 25 are included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O. Reg. 359/09 and this Approval.
10. Condition Nos. 26, 27 and 28 are included to require the Company to keep records and provide information to staff of the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.
11. Condition Nos. 29 and 30 are included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.
12. Condition No. 31 is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.

In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 47.5, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca, you can determine when this period ends.

Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.

DATED AT TORONTO this 31st day of October, 2011



Mansoor Mahmood, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

DM/

c: District Manager, MOE Sarnia
John Cobb, President, Green Breeze Energy Inc. on behalf of Zephyr Farms Limited and One-World Energy Limited
Mark Knight, Stantec Consulting Ltd.