

RENEWABLE ENERGY APPROVAL

NUMBER 2869-8VDRCV Issue Date: July 17, 2012

Capital Power GP Holdings Inc., as general partner for and

on behalf of Capital Power L.P. 70 York Street, Suite 1720

Toronto, Ontario

M5J 1S9

Project Port Dover and Nanticoke Wind Project

Location: Walpole

Located within the County of Haldimand and the County of

Norfolk

You have applied in accordance with Section 47.4 of the <u>Environmental Protection Act</u> 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 Class 4 wind facility with a total name plate capacity of 104.4 megawatts.

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

- 1. "Acoustic Assessment Report" means the report included in the Application and entitled "Noise Assessment Report Revision 5", dated June 6, 2012, prepared by Zephyr North and signed by Anthony Zlahtic, Director, Commercial Services, Capital Power Corporation;
- 2. "Acoustic Audit Emission" means an investigative procedure that is compliant with the IEC Standard 61400-11 and consisting of measurements and/or acoustic modelling of noise emissions produced by wind turbine generators, assessed to determine compliance with the manufacturer's noise (acoustic) equipment specifications and emission data of the wind turbine generators, included in the Acoustic Assessment Report;
- 3. "Acoustic Audit Immission" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Equipment, assessed to determine compliance with the Noise Performance Limits set out in this Approval;
- 4. "Acoustic Audit Report-Emission" means a report presenting the results of the Acoustic Audit Emission;

- 5. "Acoustic Audit Report-Immission" means a report presenting the results of the Acoustic Audit Immission;
- 6. "Acoustic Audit Transformer Substation" means an investigative procedure consisting of measurements and/or acoustic modelling of all noise sources comprising the transformer substation assessed to determine compliance with the Sound Power Level specification of the transformer substation described in the Acoustic Assessment Report;
- 7. "Acoustic Audit Report Transformer Substation" means a report presenting the results of the Acoustic Audit Transformer Substation;
- 8. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from wind facilities;
- 9. "Act" means the Environmental Protection Act, R.S.O 1990, c.E.19, as amended;
- 10. "Adverse Effect" has the same meaning as in the Act;
- 11. "Application" means the application for a Renewable Energy Approval dated March 2011, and signed by Sarah Palmer, Senior Environmental Advisor, Capital Power GP Holdings Inc. as general partner for and on behalf of Capital Power L.P., and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;
- 12. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
- 13. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";
- 14. "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";
- 15. "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";

- 16. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
 - 1. sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);
 - 2. 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);
 - 3. no clearly audible sound from stationary sources other than from those under impact assessment.
- 17. "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:
 - 1. a small community with less than 1000 population;
 - 2. agricultural area;
 - 3. a rural recreational area such as a cottage or a resort area; or
 - 4. a wilderness area.
- 18. "Company" means Capital Power GP Holdings Inc. as general partner for and on behalf of Capital Power L.P., the partnership under the laws of Ontario, and includes its successors and assignees;
- 19. "Compliance Protocol for Wind Turbine Noise" means the Ministry document entitled, Compliance Protocol for Wind Turbine Noise, Guideline for Acoustic Assessment and Measurement, PIBS# 8540e;
- 20. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
- 21. "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;
- 22. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
- 23. "Equipment" means the fifty-eight (58) wind turbine generators and one (1) transformer substation, identified in this Approval and as further described in the Application, to the extent approved by this Approval;
- 24. "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);

- 25. "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;
- 26. "IEC Standard 61400-11" means the International Standard IEC Standard 61400-11, Wind turbine generator systems Part 11: Acoustic noise measurement techniques, 2006;
- 27. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment;
- 28. "Ministry" means the ministry of the government of Ontario responsible for the Act and includes all officials, employees or other persons acting on its behalf;
- 29. "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;
- 30. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
- 31. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
- 32. "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;
- 33. "Sound Level" means the A-weighted Sound Pressure Level;
- 34. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq} ;
- 35. "Sound Power Level" means ten times the logarithm to the base of 10 of the ratio of the sound power (Watts) of a noise source to standard reference power of 10⁻¹² Watts;
- 36. "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);
- 37. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (μ Pa) of a sound to the reference pressure of 20 μ Pa;
- 38. "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

A - GENERAL

- A1. 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 and in accordance with the following schedules attached hereto:
 - Schedule A Facility Description
 - Schedule B Coordinates of the Equipment and Noise Specifications
- A2. 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.
- A3. 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.
- A4. If the Company has a publicly accessible 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.
- A5. 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.
- A6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.
- A7. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, contact the Ministry of Agriculture, Food and Rural Affairs to discuss its plans for the decommissioning of the Facility, including Company's objective to restore the project location to its previous agricultural capacity.

- A8. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:
 - (1) the commencement of any construction or installation activities at the project location; and
 - 2) the commencement of the operation of the Facility.
- A9. As described in Schedule A to the Approval, the Company shall not construct or install more than fifty-eight (58) out of the sixty (60) wind turbine generators identified in Schedule B to the Approval.

B - EXPIRY OF APPROVAL

- B1. Construction and installation of the Facility must be completed within three (3) 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.
- B2. 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 B1.

C - NOISE PERFORMANCE LIMITS

- C1. The Company shall ensure that:
 - (1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, 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
Sound Level Limits, dBA	40	40	40	43	45	49	51

- (2) the Equipment is constructed and installed at either of the following locations:
 - a) at the locations identified in Schedule B of this Approval; or
 - b) at a location that does not vary by more than 10 metres from the locations identified in Schedule B of this Approval and provided that,
 - i) the Equipment will comply with Condition C1 (1); and
 - ii) all setback prohibitions established under O. Reg. 359/09 are complied with.
- (3) the Equipment complies with the noise specifications set out in Schedule B of this Approval.

- C2. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1 (2), 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.
- C3. 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 an individual who has the authority to bind the Company that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition C1 (2).

D – CONFIRMATION OF VACANT LOT NOISE RECEPTORS

D1. The locations identified as Vacant Lot Surrogate Receptors in Section 12 - Appendix A of the Acoustic Assessment Report are specified as Noise Receptors for the purposes of paragraph 2 of subsection 54 (1.1) of O. Reg. 359/09 and subclause 35 (1) (a) (ii) of O. Reg. 359/09.

E - ACOUSTIC AUDIT - IMMISSION

- E1. The Company shall carry out an Acoustic Audit Immission of the Sound Levels produced by the operation of the Equipment in accordance with the following:
 - (1) the acoustic audit measurements shall be undertaken in accordance with Part D of the Compliance Protocol for Wind Turbine Noise;
 - (2) the acoustic audit measurements shall be performed by an Independent Acoustical Consultant at three (3) different Points of Reception that have been selected using the following criteria:
 - (a) the Points of Reception should represent the location of the greatest predicted noise impact, i.e., the highest predicted Sound Level; and
 - (b) the Points of Reception should be located in the direction of prevailing winds from the Facility;
 - (3) the acoustic audit measurements shall be performed on two (2) separate occasions within a period of 12 months that represent the lowest annual ambient Sound Levels, preferably:
 - (a) March to April, and
 - (b) October to November.
- E2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report-Immision, prepared by an Independent Acoustical Consultant, at the following points in time:
 - (1) no later than nine (9) months after the commencement of the operation of the Facility for the first of the two (2) acoustic audit measurements at the three (3) Points of Reception; and

(2) no later than fifteen (15) months after the commencement of the operation of the Facility for the second of the two (2) acoustic audit measurements at the three (3) Points of Reception.

F - ACOUSTIC AUDIT- EMISSION

- F1. The Company shall carry out an Acoustic Audit Emission of the acoustic emissions produced by the operation of the wind turbine generators in accordance with the following:
 - (1) the acoustic emission measurements shall be undertaken in accordance with the IEC Standard 61400-11;
 - (2) the acoustic emission measurements shall be performed by an Independent Acoustical Consultant; and
 - (3) the acoustic emission measurements shall be performed on two (2) of the wind turbine generators used in the Facility.
- F2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report-Emission, prepared in accordance with Section 9 of the IEC Standard 61400-11 by an Independent Acoustical Consultant, no later than six (6) months after the commencement of the operation of the Facility.

G - ACOUSTIC AUDIT - TRANSFORMER SUBSTATION

G1. The Company shall carry out an Acoustic Audit - Transformer Substation and shall submit to the District Manager and the Director an Acoustic Audit Report – Transformer Substation prepared by an Independent Acoustical Consultant no later than six (6) months after the commencement of the operation of the Facility.

H - STORMWATER MANAGEMENT

- H1. 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 described in the Application, including the report entitled Port Dover-Nanticoke Wind Project 230/34.5 kV Collector Substation Stormwater Management Report, dated November 16, 2011 and prepared by Stantec Consulting Ltd.
- H2. Within six (6) months of the completion of the construction of the Facility, the Company shall provide the District Manager with a written description of post-construction stormwater management conditions.

I - WATER TAKING ACTIVITIES

- I1. For foundation dewatering, if the amount of discharge exceeds 50,000 litres per day:
 - (1) the inlet pump head shall be surrounded with clear stone and filter fabric;

- (2) the discharge must be sampled each day that water is discharged and analyzed for total suspended solids (TSS). In the event that sampling results show that TSS in the discharge water exceeds 25 mg/L, the Company shall implement appropriate measures (settling tank or geosock or similar device) to mitigate these impacts; and
- (3) the Company shall regulate the discharge at such rate that there is no flooding in the receiving water body or dissipate the discharge so that no soil erosion is caused that impacts the receiving waterbody.
- I2. For stream diversion, if the amount of discharge exceeds 50,000 litres per day and dam and pump technology is used:
 - (1) the Company shall regulate the discharge at such a rate that there is no flooding in the downstream area and no soil erosion or stream channel scouring caused at the point of discharge. The Company shall use a discharge diffuser or other energy dissipation device, if necessary, to mitigate flows which physically alter the stream channel or banks; and,
 - (2) siltation control measures shall be installed at both the taking location upstream of the construction site and (if necessary) the discharge site and shall be sufficient for the volumes pumped. The Company shall take all measures to properly maintain these control devices throughout the construction period.
- I3. For water takings (by tanker) for the purpose of dust suppression, equipment washing and similar activities:
 - (1) notwithstanding the authorized rate of water taking, this Approval limits the taking of water at any site at the project location for up to 10% of the instantaneous streamflow present on the day or days of taking. The authorized water taking rate may therefore have to be adjusted downward to remain within this 10% maximum; and
 - (2) prior to taking water from any site at the project location, the Company shall contact the Long Point Region Conservation Authority to determine if any low water conditions have been declared arid are in effect. The Company shall not take water if a Level 2 or Level 3 low water condition has been declared.

J - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

- J1. Prior to the construction of the transformer substation, the Company shall retain an independent Professional Engineer licensed in Ontario, and knowledgeable about electrical transformer substations and their associated sewage works, to prepare a design report on the spill containment facility for the transformer substation that shall contain the following:
 - (1) final design drawings and specifications of the spill containment area and associated sewage works;

- (2) operation and maintenance procedures for the spill containment facility including an emergency/contingency plan; and
- (3) a monitoring program, including a groundwater monitoring program if a subsurface disposal system is proposed, which shall contain at a minimum one monitoring well immediately around the spill containment works and one on the property boundary down gradient from the transformer substation.
- J2. The Company shall ensure that the spill containment facility for the transformer substation meets the following requirements:
 - (1) the containment facility shall have an impervious concrete floor and walls sloped toward an outlet, maintaining a freeboard of 0.25 metres terminating approximately 0.30 metres above grade, with an impervious plastic liner or equivalent, and 1.0 metre layer of crushed stoned within;
 - (2) the containment pad shall drain to an oil control device, such as an oil/water separator, a pump-out sump, an oil absorbing material in a canister or a blind sump; and
 - (3) the oil control device shall be equipped with an oil detection system and appropriate sewage appurtenances as necessary (pumpout manhole, submersible pumps, level controllers, floating oil sensors, etc.).
- J3. The Company shall submit the design report for the spill containment facility prepared under Condition No. J1 to the Director and shall not commence the construction of the transformer substation until the Director provides written confirmation verifying that the Director is satisfied with the proposed sewage works.
- J4. The Company shall design, construct and operate the sewage works of the transformer substation spill containment facility such that the concentration of the effluent parameter named in the table below does not exceed the maximum concentration objective shown for that parameter in the effluent, and shall comply with the following requirements:

Effluent Parameters	Maximum Concentration Objective
Oil and Grease	15mg/L

- (a) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;
- (b) take immediate action to identify the cause of the exceedance; and
- (c) take immediate action to prevent further exceedances..

K - NATURAL HERITAGE PRE- AND POST- CONSTRUCTION MONITORING

PRE-CONSTRUCTION MONITORING

- K1. The Company shall implement the pre-construction monitoring described in the report included in the Application and entitled Port Dover and Nanticoke Wind Project Natural Heritage Assessment and Environmental Impact Study Addendum, dated April 2011, and prepared by Stantec Consulting Ltd. This shall include:
 - (1) a baseline survey of bald eagle nesting and fledging activity and flight patterns, to establish pre-construction data.
- K2. If the Company determines that it must deviate from the pre-construction monitoring described in Condition K1, the Company shall contact the Southern Region Renewable Energy Operations Coordinator of the Ministry of Natural Resources and the Director, prior to making any changes to the methodology, and follow any directions provided.

POST-CONSTRUCTION MONITORING, INCLUDING BIRD AND BAT MORTALITY MONITORING

- K3. The Company shall implement the post-construction monitoring described in the reports included in the Application and entitled Environmental Effects Monitoring Plan for Wildlife and Wildlife Habitat, submitted April 2012, and prepared by Stantec Consulting Ltd., and Natural Heritage Assessment and Environmental Impact Study Addendum, dated April 2011, and prepared by Stantec Consulting Ltd.. This shall include:
 - (1) disturbance monitoring for forest breeding birds;
 - (2) disturbance monitoring for amphibian breeding habitat;
 - (3) monitoring of bald eagle nesting and fledging activity and flight patterns; and
 - (4) bird and bat mortality monitoring.
- K4. If the Company determines that it must deviate from the monitoring described in Condition K3, the Company shall contact the Southern Region Renewable Energy Operations Coordinator of the Ministry of Natural Resources and the Director, prior to making any changes to the methodology, and follow any directions provided.

REPORTING AND REVIEW OF RESULTS

- K5. The Company shall contact the Southern Region Renewable Energy Operations Coordinator of the Ministry of Natural Resources and the Director if there are any applicable thresholds as described in the Environmental Effects Monitoring Plan for Wildlife and Wildlife Habitat reached or exceeded as follows:
 - (1) 10 bats per turbine per year;
 - (2) 14 birds per turbine per year at individual turbines or turbine groups;
 - (3) 0.2 raptors per turbine per year (all raptors) across the Facility;

- (4) 0.1 raptors per turbine per year (raptors of provincial conservation concern) across the Facility;
- (5) 10 or more birds at any one turbine during a single monitoring survey; or
- (6) 33 or more birds (including raptors) at multiple turbines during a single monitoring survey.
- K6. The Company shall report mortality levels to the Ministry of Natural Resources for the first three (3) years following the commencement of the operation of the Facility, on an annual basis and within three (3) months of the conclusion of the October mortality monitoring, with the exception of the following (threshold references are to the actual number of species observed in the field, prior to correction factors):
 - (1) where a single mortality monitoring event exceeds 10 or more birds at any one turbine or 33 or more birds (including raptors) at multiple turbines the mortality event shall be reported to the Ministry of Natural Resources within 48 hours of observation;
 - (2) any and all mortality or injury of species at risk (including a species listed on the Species at Risk in Ontario list as Extirpated, Endangered or Threatened under the provincial *Endangered Species Act*, 2007) that occurs shall be reported to the Ministry of Natural Resources within 48 hours;
 - (3) where operational mitigation is applied for bats, an additional three (3) years of effectiveness monitoring is required and the Company shall report mortality levels to the Ministry of Natural Resources for three (3) years following the commencement of such operational mitigation on an annual basis and within three (3) months of the conclusion of the October mortality monitoring;
 - (4) where operational mitigation is applied for birds, for turbines located outside 120 metres of bird significant wildlife habitat, two (2) years of subsequent mortality and effects monitoring is required for those turbines where a significant annual bird or raptor mortality threshold is exceeded and the Company shall report mortality levels to the Ministry of Natural Resources for two (2) years following the observance of any such exceedance on an annual basis and within three (3) months of the conclusion of the October mortality monitoring; and
 - (5) where operational mitigation is applied for birds, for turbines located within 120 metres of bird significant wildlife habitat, three (3) years of effectiveness monitoring for those turbines where the exceedances were observed is required. The Company shall report effectiveness monitoring results to the Ministry of Natural Resources for up to three (3) years following the observance of any such exceedance, on an annual basis and within three (3) months of the conclusion of the effectiveness monitoring.

OPERATIONAL MITIGATION

- K7. The Company shall implement, as necessary, operational mitigation measures consistent with those identified in the document entitled Bats and Bat Habitats: Guidelines for Wind Power Projects, dated July 2011, and available from the Ministry of Natural Resources, and shall include either of the following mitigation measures:
 - increasing cut-in speed to 5.5 m/s or feathering wind turbine blades when wind speeds are below 5.5 m/s between sunset and sunrise, from July 15 to September 30 at all turbines; or
 - (2) where an agreement between the Company and the Ministry of Natural Resources can be reached, an alternate operational mitigation plan agreed to between the Company and the Ministry of Natural Resources.

- K8. Where annual mortality levels exceed 14 birds per turbine per year at individual turbines or turbine groups or 0.2 raptors or vultures per turbine per year across the Facility or 0.1 raptors of provincial conservation concern per turbine per year across the Facility, the Company shall contact the Ministry of Natural Resources to initiate an appropriate response plan that shall include one or more of the following mitigation measures:
 - (1) increased reporting frequency to identify potential threshold exceedance;
 - (2) additional behavioural studies to determine factors affecting mortality rates;
 - (3) periodic shut-down of select turbines;
 - (4) blade feathering at specific times of year; or
 - (5) an alternate plan agreed to between the Company and the Ministry of Natural Resources.

L - TRAFFIC MANAGEMENT PLANNING

- L1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of Haldimand County and the Municipality of Norfolk County.
- L2. Within three (3) months of having provided the Traffic Management Plan to the Municipality of Haldimand County and the Municipality of Norfolk County, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality of Haldimand County and the Municipality of Norfolk County.
- L3. If a Road Users Agreement has not been signed with the Municipality of Haldimand County and the Municipality of Norfolk County within three (3) months of having provided the Traffic Management Plan to the Municipality of Haldimand County and the Municipality of Norfolk County, the Company shall provide a written explanation to the Director as to why this has not occurred.

M - ARCHAEOLOGICAL RESOURCES

- M1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites found in the consultant archaeologist's report included in the Application, and which the Company submitted to the Ministry of Tourism, Culture and Sport in order to comply with clause 22 (2) (b) of O. Reg. 359/09.
- M2. Should any previously undocumented archaeological resources be discovered, the Company shall:
 - (1) cease all alteration of the area in which the resources were discovered immediately;
 - engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act*, the regulations under that act and the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
 - (3) notify the Director as soon as reasonably possible.

N - COMMUNITY LIAISON COMMITTEE

- N1. Within three (3) months of receiving this Approval, the Company shall make reasonable efforts to establish a Community Liaison Committee. The Community Liaison Committee shall be a forum to exchange ideas and share concerns with interested residents and members of the public. The Community Liaison Committee shall be established by:
 - (1) publishing a notice in a newspaper with general circulation in each local municipality in which the project location is situated; and
 - (2) posting a notice on the Company's publicly accessible website, if the Company has a website;

to notify members of the public about the proposal for a Community Liaison Committee and invite residents living within a one (1) kilometer radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.

- N2. The Company may invite other members of stakeholders to participate in the Community Liaison Committee, including, but not limited to, local municipalities, local conservation authorities, Aboriginal communities, federal or provincial agencies, and local community groups.
- N3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.
- N4. The purpose of the Community Liaison Committee shall be to:
 - (1) act as a liaison facilitating two way communications between the Company and members of the public with respect to issues relating to the construction, installation, use, operation, maintenance and retirement of the Facility;
 - (2) provide a forum for the Company to provide regular updates on, and to discuss issues or concerns relating to, the construction, installation, use, operation, maintenance and retirement of the Facility with members of the public; and
 - (3) ensure that any issues or concerns resulting from the construction, installation, use, operation, maintenance and retirement of the Facility are discussed and communicated to the Company.
- N5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that representative Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.
- N6. If a Community Liaison Committee has not been established within three (3) months of receiving this Approval, the Company shall provide a written explanation to the Director as to why this has not occurred.

- N7. The Company shall ensure that the Community Liaison Committee operates for a minimum period of two (2) years from the day it is established. During this two (2) year period, the Company shall ensure that the Community Liaison Committee meets a minimum of two (2) times per year. At the end of this two (2) year period, the Company shall contact the Director to discuss the continued operation of the Community Liaison Committee.
- N8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.
- N9. The Company shall provide administrative support for the Community Liaison Committee including, at a minimum:
 - (1) providing a meeting space for Community Liaison Committee meetings;
 - (2) providing reasonable access to resources, such as a photocopier, stationery, and office supplies, so that the Community Liaison Committee can:
 - (a) prepare and distribute meeting notices;
 - (b) record and distribute minutes of each meeting; and
 - (c) prepare reports about the Community Liaison Committee's activities.
- N10. The Company shall submit any reports of the Community Liaison Committee to the Director and post it on the Company's publicly accessible website, if the Company has a website.

O - OPERATION AND MAINTENANCE

- O1. Prior to the commencement of the operation of the Facility, 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.
- O2. The Company shall;
 - (1) update, as required, the manual described in Condition O1; and

- (2) make the manual described in Condition O1 available for review by the Ministry upon request.
- O3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition O1.

P - RECORD CREATION AND RETENTION

- P1. 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 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.
- P2. A record described under Condition P1 (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 wind 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.
- P3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition P, and make these records available for review by the Ministry upon request.

Q - NOTIFICATION OF COMPLAINTS

- Q1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.
- Q2. The Company shall provide the District Manager with the written records created under Condition P2 within eight (8) business days of the receipt of the complaint.

R - CHANGE OF OWNERSHIP

- R1. 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.

S - ABORIGINAL CONSULTATION

- S1. During the construction, installation, and operation of the Facility, the Company shall:
 - (1) maintain communications with interested Aboriginal communities;
 - (2) create and maintain written records of the communications; and,
 - (3) make the written records available for review by the Ministry upon request
- S2. The Company shall fulfill all commitments made to Aboriginal communities during the construction, installation, and operation of the Facility, including but not limited to, providing the following to interested Aboriginal communities that have requested or may request it:
 - (1) updated non-confidential project information, including the results of monitoring activities undertaken and copies of additional archaeological assessment reports that may be prepared; and;

- (2) updates on key steps in the construction, installation, and operation phases of the Facility, including notice of the commencement of construction activities at the project location.
- S3. If an interested Aboriginal community requests a meeting to obtain non-confidential information relating to the construction, installation, and operation of the Facility, the Company shall use reasonable efforts to arrange and participate in such a meeting.
- S4. If any archaeological resources of Aboriginal origin are found during the construction of the Facility, the Company shall:
 - (1) notify the Six Nations of the Grand River and the Mississaugas of the New Credit and any other Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,
 - (2) arrange and participate in any meeting requested by an interested Aboriginal community to discuss the archaeological find(s) and/or the use of Aboriginal archaeological liaisons.

SCHEDULE A

Facility Description

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

- a total of fifty-eight (58) out of sixty (60) Vestas V90 1.8 MW VCSS wind turbine generators each rated at 1.8 megawatts generating output capacity with a total name plate capacity of 104.4 megawatts, designated as source ID Nos. **T401 T404, T406 T414, T501 T503, T505 T507, T510, T511, T513, T514, T516 T519, T521 T525, T527 T541, T543, T545 T554, and T556 T558**, each with a hub height of 95 metres above grade, and sited at the locations shown in Schedule B; and
- (b) associated ancillary equipment, systems and technologies including one transformer substation, on-site access roads, underground cabling and overhead distribution lines,

all in accordance with the Application.

SCHEDULE B

Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment are listed below in UTM, Z17-NAD83 projection:

Source	Sound Power	Easting (m)	Northing (m)	Source description
ID	Level (dBA)	_	_	· ·
T401	103.5	568,697	4,738,990	Vestas V90-1.8MW VCSS
T402	103.5	568,926	4,738,733	Vestas V90-1.8MW VCSS
T403	103.5	569,076	4,738,504	Vestas V90-1.8MW VCSS
T404	103.5	568,895	4,738,193	Vestas V90-1.8MW VCSS
T406	103.5	569,647	4,738,615	Vestas V90-1.8MW VCSS
T407	103.5	569,430	4,739,242	Vestas V90-1.8MW VCSS
T408	103.5	569,563	4,738,160	Vestas V90-1.8MW VCSS
T409	103.5	569,814	4,739,619	Vestas V90-1.8MW VCSS
T410	103.5	569,995	4,739,250	Vestas V90-1.8MW VCSS
T411	103.5	570,172	4,738,893	Vestas V90-1.8MW VCSS
T412	103.5	570,109	4,738,532	Vestas V90-1.8MW VCSS
T413	103.5	570,344	4,738,290	Vestas V90-1.8MW VCSS
T414	103.5	570,347	4,739,860	Vestas V90-1.8MW VCSS
T501	103.5	571,882	4,744,905	Vestas V90-1.8MW VCSS
T502	103.5	572,054	4,744,163	Vestas V90-1.8MW VCSS
T503	103.5	572,511	4,744,710	Vestas V90-1.8MW VCSS
T505	103.5	573,708	4,743,768	Vestas V90-1.8MW VCSS
T506	103.5	574,387	4,743,875	Vestas V90-1.8MW VCSS
T507	103.5	574,930	4,742,640	Vestas V90-1.8MW VCSS
T510	103.5	574,802	4,743,808	Vestas V90-1.8MW VCSS
T511	103.5	575,322	4,742,751	Vestas V90-1.8MW VCSS
T513	103.5	577,329	4,744,017	Vestas V90-1.8MW VCSS
T514	103.5	577,261	4,744,282	Vestas V90-1.8MW VCSS
T516	103.5	578,653	4,744,610	Vestas V90-1.8MW VCSS
T517	103.5	579,441	4,742,072	Vestas V90-1.8MW VCSS
T518	103.5	579,533	4,741,665	Vestas V90-1.8MW VCSS
T519	103.5	579,897	4,743,587	Vestas V90-1.8MW VCSS
T521	103.5	580,139	4,743,140	Vestas V90-1.8MW VCSS
T522	103.5	579,948	4,742,195	Vestas V90-1.8MW VCSS
T523	103.5	580,395	4,745,151	Vestas V90-1.8MW VCSS

SCHEDULE B (continued)

Source	Sound Power	Easting (m)	Northing (m)	Source description
ID	Level (dBA)	3 、 <i>/</i>	J 、 /	-
T524	103.5	580,850	4,740,726	Vestas V90-1.8MW VCSS
T525	103.5	580,425	4,742,237	Vestas V90-1.8MW VCSS
T527	103.5	580,845	4,740,070	Vestas V90-1.8MW VCSS
T528	103.5	580,924	4,742,063	Vestas V90-1.8MW VCSS
T529	103.5	580,960	4,745,244	Vestas V90-1.8MW VCSS
T530	103.5	581,146	4,740,457	Vestas V90-1.8MW VCSS
T531	103.5	581,225	4,740,767	Vestas V90-1.8MW VCSS
T532	103.5	581,259	4,739,957	Vestas V90-1.8MW VCSS
T533	103.5	581,277	4,745,145	Vestas V90-1.8MW VCSS
T534	103.5	581,699	4,743,973	Vestas V90-1.8MW VCSS
T535	103.5	581,714	4,740,972	Vestas V90-1.8MW VCSS
T536	103.5	581,857	4,743,740	Vestas V90-1.8MW VCSS
T537	103.5	582,020	4,740,794	Vestas V90-1.8MW VCSS
T538	103.5	582,260	4,744,187	Vestas V90-1.8MW VCSS
T539	103.5	582,759	4,742,476	Vestas V90-1.8MW VCSS
T540	103.5	583,577	4,744,367	Vestas V90-1.8MW VCSS
T541	103.5	583,795	4,745,820	Vestas V90-1.8MW VCSS
T543	103.5	584,273	4,742,681	Vestas V90-1.8MW VCSS
T546	103.5	584,917	4,742,909	Vestas V90-1.8MW VCSS
T547	103.5	584,896	4,744,176	Vestas V90-1.8MW VCSS
T548	103.5	584,767	4,743,168	Vestas V90-1.8MW VCSS
T549	103.5	585,207	4,743,227	Vestas V90-1.8MW VCSS
T550	103.5	585,310	4,744,492	Vestas V90-1.8MW VCSS
T551	103.5	585,331	4,743,737	Vestas V90-1.8MW VCSS
T552	103.5	585,480	4,744,274	Vestas V90-1.8MW VCSS
T553	103.5	585,719	4,743,350	Vestas V90-1.8MW VCSS
T554	103.5	585,946	4,741,934	Vestas V90-1.8MW VCSS
T556	103.5	586,076	4,741,064	Vestas V90-1.8MW VCSS
T557	103.5	586,174	4,740,775	Vestas V90-1.8MW VCSS
T558	103.5	582,339	4,740,661	Vestas V90-1.8MW VCSS
Tr101	81*	576,096	4,746,561	Transformer: XXX MVA

*NOTE: The Sound Power Level reported above for the Transformer Substation does not include the 5 dB tonality penalty.

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

- 1. Condition A1, A2, and A9 are included 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 A3 and A4 are included to require the Company to provide information to the public and the local municipality.
- 3. Condition A5, A6 and A7 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 A8 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation and operation of the Facility.
- 5. Condition B is intended to limit the time period of the Approval.
- 6. Condition C1 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 Noise Guidelines for Wind Farms.
- 7. Conditions C2, C3 and D 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.
- 8. Conditions E, F and G are 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.
- 9. Condition H, I, J, K, and L 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.
- 10. Condition M is included to ensure that is included to protect archaeological resources that may be found at the project location.
- 11. Condition N is included to ensure continued communication between the Company and the local residents.
- 12. Condition O is 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.
- 13. Condition P is included to require the Company to keep records and provide information to the Ministry so that compliance with the Act, O. Reg. 359/09 and this Approval can be verified.

- 14. Condition Q is 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.
- 15. Condition R 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.
- 16. Condition S is included to require the Company to ensure continued communication between the Company and Aboriginal communities.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the <u>Environmental Protection Act</u>, 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 <u>Environmental Bill of Rights</u>, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the <u>Environmental Protection Act</u> 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* The Environmental Commissioner The Director Environmental Review Tribunal 1075 Bay Street, 6th Floor Section 47.5, Environmental Protection Act 655 Bay Street, 15th Floor Suite 605 Ministry of the Environment Toronto, Ontario **AND** Toronto, Ontario **AND** 2 St. Clair Avenue West, Floor 12A M5G 1E5 M5S 2B1 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 <u>Environmental Protection Act</u>, 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 17th day of July, 2012

Vic Schroter, P.Eng.

Director

Section 47.5, Environmental Protection Act

KR/

c: District Manager, MOE Hamilton - District Sarah Palmer