Ontario

Ministry of the Environment
Ministère de l'Environnement

RENEWABLE ENERGY APPROVAL

NUMBER 4544-9B7MYH
Issue Date: October 9, 2013

SP Armow Wind Ontario GP Inc. as general partner for and
on behalf of SP Armow Wind Ontario LP
55 Standish Crt
Mississauga, Ontario L5R 4B2

Project Location: Armow Wind Project
Bounded by Hwy. 21 to the west, Conc. 4 to the north,
County Rd. 1 to the east and North Line to the South
Kincardine Municipality, County of Bruce

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 Class 4 wind facility with a total name plate capacity of 180 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 "Armow Wind Farm Noise Impact Assessment," dated September 9, 2013, prepared by GL Garrad Hassan and signed by Andrew Brunskill;
2. "Acoustic Audit - Emission" means an investigative procedure that is compliant with the CAN/CSA Standard C61400-11-07 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 Report - Transformer Substation/Transformers" means a report presenting the results of the Acoustic Audit - Transformer Substation/Transformers.

7. "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;

8. "Act" means the *Environmental Protection Act* , R.S.O 1990, c.E.19, as amended;

9. "Adverse Effect" has the same meaning as in the Act;

10. "Application" means the application for a Renewable Energy Approval dated December 3, 2012 and signed by Jeong Tack Lee, Executive Vice-President and Director, SP Armow Wind Ontario GP Inc. as general partner for and on behalf of SP Armow Wind Ontario LP, and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;

11. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;

12. "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”;

13. "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”;

14. CAN/CSA Standard C61400-11-07, “Wind Turbine Generator Systems – Part 11: Acoustic Noise Measurement Techniques”, dated October 2007;

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:

    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

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:

    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.

18. "Company" means SP Armow Wind Ontario GP Inc. as general partner for and on behalf of SP Armow Wind Ontario LP 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 wind turbine generators and the substation with transformers, 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 A-weighted decibels (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. "IEEE Standard C57.12.90” means the IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers, 2010.

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. "Publication NPC-233" means Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;

34. "Sound Level" means the A-weighted Sound Pressure Level;

35. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq};

36. "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;

37. "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);

38. "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 sound pressure of 20 µPa;

39. "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
Schedule C - Noise Control Measures

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 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.

A8. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, consult with the Ministry of Agriculture and Food regarding its plans for the decommissioning of the Facility and the restoration of the project location to its previous agricultural capacity.

A9. As described in Schedule A of the Approval the Company shall:

(1) not construct or operate more than ninety two (92) out of the ninety eight (98) wind turbine generators and two (2) transformers, as specified in Schedules A and B of the Approval;

(2) construct and operate up to one of the Siemens model SWT-2.3-101 wind turbine generator, with power rating equal to 2.126 MW, and a hub height of 80 m, at the location with UTM coordinates for the wind turbine generator designated as source ID No. T80; and

(3) construct and operate up to one of the Siemens model SWT-2.3-101, with power rating equal to 2.030 MW, and a hub height of 80 m, at the location with UTM coordinates for the wind turbine generator designated as source ID No. T68.

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 on or 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	40.0	40.0	40.0	43.0	45.0	49.0	51.0

(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. Prior to construction and installation of the transformers the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the subject two (2) transformers' sound power levels, determined fully in accordance with the IEEE Standard C57.12.90-2010, do not exceed the maximum sound power levels specified in the Schedule B of the Approval.

C3. 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.

C4. 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 one hundred forty three (143) locations identified in Table 7 entitled "Wind turbine noise impact assessment summary", of the final Revised Noise Impact Assessment Report for the Armow Wind Project, as the Non-Participating Vacant Lots with ID numbers V_507, V_510-V_512, V_514, V_520-V_526, V_528-V_533, V_538, V_541-V_546, V_549-V_558, V_580, V_596-V_607, V_609-V612, V_629-V_631, V_633-V_637, V_656-V_687, V_689-V693, V_695-V_699, V_703-V_709, V_711-V_713, V_718, V_734-V_749, V_751, V_752, V_755, V_756, V_758-V_764, V_772, V_774 and V_775 are specified as Noise Receptors for the purposes of subsection 54 (1.1) of O. Reg. 359/09 and subsection 35 (1.01) 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 five (5) different Points of Reception that have been selected using the following criteria:

(a) the Points of Reception should represent the locations of the greatest predicted noise impacts, i.e., the highest predicted Sound Levels; 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;

(4) the acoustic audit measurements should be performed within a period of twelve (12) months.

E2. The Company shall submit to the District Manager and the Director an Acoustic Audit Report - Immission, 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 five (5) Points of Reception; and

(2) no later than eighteen (18) months after the commencement of the operation of the Facility for the second of the two (2) acoustic audit measurements at the five (5) Points of Reception.

E3. The Company shall carry out an Acoustic Audit - Transformer Substation/Transformers and shall submit to the District Manager and the Director an Acoustic Audit Report – Transformer Substation/Transformers prepared by an Independent Acoustical Consultant no later than six (6) months after the commencement of the operation of the Facility.

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 of the wind turbine generators shall be undertaken in accordance with the CAN/CSA Standard C61400-11-07;

(2) the acoustic emission measurements shall be performed by an Independent Acoustical Consultant; and

(4) the acoustic emission measurements shall be performed on one (1) wind turbine generator of each of the eight (8) types of the wind turbine generators used in the Facility and specified in Schedules A and B of the Approval.

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 CAN/CSA Standard C61400-11-07 by an Independent Acoustical Consultant, no later than six (6) months after the commencement of the operation of the Facility.

G - STORMWATER MANAGEMENT

G1. 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.

G2. Within six 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.

H - WATER TAKING ACTIVITIES

H1. 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.

H2. 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.

H3. 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 Saugeen Valley 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.

I - SEWAGE WORKS OF THE TRANSFORMER SPILL CONTAINMENT FACILITY

I1. The Company shall design and construct a transformer/substation oil spill containment facility which meets the following requirements:

(1) the spill containment facility serving the transformer/substation shall have a minimum volume equal to the volume of transformer oil and lubricants plus the volume equivalent to providing a minimum 24-hour duration, 50-year return storm capacity for the stormwater drainage area around the transformer under normal operating conditions. This containment area shall have:

(a) an impervious floor with walls usually of reinforced concrete or impervious plastic liners, sloped toward an outlet / oil control device, allowing for a freeboard of 0.25 metres terminating approximately 0.30 metres above grade to prevent external stormwater flows from entering the facility. The facility shall have a minimum of 300mm layer of crushed stoned (19mm to 38mm in diameter) within, all as needed in accordance to site specific conditions and final design parameters; or

(b) a permeable floor with impervious plastic walls and around the transformer pad; equipped with subsurface drainage with a minimum 50mm diameter drain installed on a sand layer sloped toward an outlet for sample collection purposes; designed with an oil absorbent material on floor and walls, and allowing for a freeboard of 0.25 metres terminating approximately 0.30 metres above grade to prevent external stormwater flows from entering the facility. The facility's berm shall be designed as needed in accordance to site specific conditions and the facility shall have a minimum 300mm layer of crushed stoned (19mm to 38mm in diameter) on top of the system, as needed in accordance to site specific conditions and final design parameters.

(2) the spill containment facility shall be equipped with an oil detection system; it also shall have a minimum of two (2) PVC pipes (or equivalent material) 50mm diameter to allow for visual inspection of water accumulation. One pipe has to be installed half way from the transformer pad to the vehicle access route;

(3) the spill containment facility shall have appropriate sewage appurtenances as necessary, such as but not limited to: sump, oil/grit separator, pumpout manhole, level controllers, floating oil sensors, etc., that allows for batch discharges or direct discharges and for proper implementation of the monitoring program described under section C; and

(4) the Company shall have a qualified technician on-site during construction to ensure that the system is installed in accordance with the approved design and specifications.

I2. The Company shall:

(1) provide an engineering report and design drawings issued for construction signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical and environmental engineering. The report shall also include a statement from the Engineer that he/she has prepared or reviewed the design and is in agreement with it;

(2) within six (6) months after the completion of the construction of the transformer/substation spill containment facility, provide the District Manager a report and as-built drawings signed and stamped by an independent Professional Engineer licensed in Ontario which includes the following:

(a) as-built drawings of the sewage works for the spill containment facility and any stormwater management works required for it;

(b) a written report signed by a qualified person confirming the following:

(i) on-site supervision during construction
(ii) in case of a permeable floor systems: type of oil absorbent material used (for mineral-based transformer oil or vegetable-based transformer oil, make and material's specifications)
(ii) use of stormwater best management practices applied to prevent external surface water runoff from entering the spill containment facility, and
(iv) confirm adequacy of the installation in accordance with specifications.

(c) confirmation of the adequacy of the operating procedures and the emergency procedures manuals as it pertains to the installed sewage works.

(d) procedures to provide emergency response to the site in the form of pumping and clean-up equipment within 24 hours after an emergency has been identified. Such response shall be provided even under adverse weather conditions to prevent further danger of material loss to the environment.

(3) as a minimum, the Company shall check the oil detection systems on a monthly basis and create a written record of the inspections;

(4) ensure that the effluent is essentially free of floating and settle-able solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters;

(5) immediately identify and clean-up all losses of oil from the transformer;

(6) upon identification of oil in the spill containment facility, take immediate action to prevent the further occurrence of such loss;

(7) ensure that equipment and material for the containment, clean-up and disposal of oil and materials contaminated with oil are kept within easy access and in good repair for immediate use in the event of:

(a) loss of oil from the transformer,
(b) a spill within the meaning of Part X of the Act, or
(c) the identification of an abnormal amount of oil in the effluent.

(8) in the event of finding water accumulation in the PVC pipes (visual inspection) after 48 hrs of any storm event, the Company shall: (a) for impervious floors, inspect the sewage appurtenances that allow drainage of the concrete pit; or (b) for permeable systems, replace the oil absorbent material to ensure integrity of the system performance and design objectives.

(9) for permeable floor systems, the Company shall only use the type of oil specified in the design, i.e. mineral-based transformer oil or vegetable-based transformer oil. If a change is planned to modify the type of oil, the Company shall also change the type of the oil absorbent material and obtain approval from the Director to amend this Approval before any modification is implemented.

I3. The Company shall design, construct and operate the sewage works 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

(1) notify the District Manager as soon as reasonably possible of any exceedance of the maximum concentration objective set out in the table above;

(2) take immediate action to identify the cause of the exceedance; and

(3) take immediate action to prevent further exceedances.

I4. Upon commencement of the operation of the Facility, the Company shall establish and carry out the following monitoring program for the sewage works:

(1) the Company shall collect and analyze the required set of samples at the sampling points listed in the table below in accordance with the measurement frequency and sample type specified for the effluent parameter, oil and grease, and create a written record of the monitoring:

Effluent	Measurement Frequency	Sample Type

Parameters	and Sample Points	
Oil and Grease	Quarterly, i.e. four times over a year, relatively evenly spaced having a minimum two (2) of these samples taken within 48 hours after a 10mm rainfall event.	Grab

(2) in the event of an exceedance of the maximum concentration objective set out in the table in Condition C, the Company shall:

(a) increase the frequency of sampling to once per month, with samples taken within 48 hours after a 10mm rainfall event, and

(b) provide the District Manager, on annual basis, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling and reporting is no longer required; and

(3) if over a period of twenty-four (24) months of effluent monitoring under Condition No. I4(1), there are no exceedances of the maximum concentration set out in the table for Concentration Objective, the Company may reduce the measurement frequency of effluent monitoring to a frequency as the District Manager may specify in writing, provided that the new specified frequency is never less than annual.

(4) the Company shall, in the event of an exceedance of the maximum Concentration Objective set out in the table under Condition C, increase the frequency of sampling to once per month and provide the District Manager, with copies of the written record created for the monitoring until the District Manager provides written direction that monthly sampling is no longer required.

I5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition No. I4:

(1) Ministry of the Environment publication "Protocol for the Sampling and Analysis of Industrial/ Municipal Wastewater", January 1999, as amended from time to time by more recently published editions, and

(2) the publication "Standard Methods for the Examination of Water and Wastewater", 21st edition, 2005, as amended from time to time by more recently published editions.

J - NATURAL HERITAGE AND POST CONSTRUCTION MONITORING

GENERAL

J1. The Company shall implement the Armow Wind Project Natural Heritage Environmental Effects Monitoring Plan, dated August 2013, and the commitments made in the following reports and included in the Application, and which the Company submitted to the Ministry of Natural Resources in order to comply with O. Reg. 359/09:

- Armow Wind Project Natural Heritage Environmental Impact Study, dated October 2012 and prepared by Natural Resource Solutions Inc. for Golder Associates Ltd.

- Armow Wind Project Natural Heritage Assessment Addendum Report, dated November 2012 and prepared by Natural Resource Solutions Inc. for Golder Associates Ltd.
- Memo titled Armow Wind Project Natural Heritage Assessment Addendum II, dated November 22, 2012 and prepared by Natural Resource Solutions Inc.

J2. If the Company determines that it must deviate from either the Environmental Effects Monitoring Plan or the Environmental Impact Study or Addenda thereto, described in Condition J1, the Company shall contact the Ministry of Natural Resources and the Director, prior to making any changes to the Environmental Effects Monitoring Plan, Environmental Impact Study or Addenda, and follow any directions provided.

POST-CONSTRUCTION MONITORING – SIGNIFICANT WILDLIFE HABITAT

J3. The Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan and the Environmental Impact Study, described in Condition J1, including the following:

(1) Disturbance Monitoring for Amphibian Breeding Habitat (Woodlands) for features AWO-001, 002, 007, 009, 018, 020, 021, 036, 039 and 044.

(2) Disturbance Monitoring for Open Country Breeding Bird Habitat for features OCB-004, 008, 009, 015, 018, 020, 025, 027, and 029.

POST CONSTRUCTION MONITORING - BIRD AND BAT MONITORING

J4**.** The Company shall implement the post-construction bird and bat mortality monitoring described in the Environmental Effects Monitoring Plan, described in Condition J1, at a minimum of 30% of the constructed turbines.

THRESHOLDS AND MITIGATION

J5. The Company shall contact the Ministry of Natural Resources and the Director if any of the following bird and bat mortality thresholds, as stated in the Environmental Effects Monitoring Plan, described in Condition J1, exceeds:

(1) 10 bats per turbine per year across the Facility;
(2) 14 birds per turbine per year at individual turbines or turbine groups across the Facility;
(3) 0.2 raptors per turbine per year (all raptors) across the Facility;
(4) 0.1 raptors per turbine per year (provincially tracked raptors) 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) across the Facility during a single monitoring survey.

J6. If the bat mortality threshold described in Condition J5 (1) is exceeded, the Company shall:

(1) implement operational mitigation measures consistent with those described in the Ministry of Natural Resources publication entitled "Bats and Bat Habitats: Guidelines for Wind Power Projects" dated July 2011, or in an amended version of the publication. Such measures shall include some or all of the following:

(i) increasing cut-in speed to 5.5 m/s and/or feather 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 a select number of turbines as deemed appropriate by the Ministry of Natural Resources; or

(ii) implementing an alternate plan agreed to between the Company and the Ministry of Natural Resources.

(2) implement an additional three (3) years of effectiveness monitoring.

J7. If the bat mortality threshold described in Condition J5 (1) is exceeded after operational mitigation is implemented in accordance with Condition J6, the Company shall prepare and implement a contingency plan, in consultation with the Ministry of Natural Resources, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.

J8. If either of the bird mortality thresholds described in Conditions J5 (2), J5 (3) or J5 (4) is exceeded for turbines located within 120 metres of bird significant wildlife habitat, or if disturbance effects are realized at bird significant wildlife habitat within 120 metres of turbine(s) while monitoring is being implemented in accordance with Condition J4, the Company shall implement immediate mitigation actions as described in the Environmental Impact Study and Environmental Effects Monitoring Plan described in Condition J1, and an additional three (3) years of effectiveness monitoring.

J9. If either of the bird mortality thresholds described in Conditions J5 (2), J5 (3) or J5 (4) is exceeded for turbines located outside 120 metres of bird significant wildlife habitat, the Company shall conduct two (2) years of subsequent scoped mortality monitoring and cause and effects monitoring. Following the completion of scoped monitoring, the Company shall implement operational mitigation and effectiveness monitoring at individual turbines as agreed to between the Company and the Ministry of Natural Resources, for the first three (3) years following the implementation of mitigation.

J10. If either of the bird mortality thresholds described in Conditions J5 (5) or J5 (6) is exceeded, the Company shall prepare and implement a contingency plan to address immediate mitigation actions which shall include:

(1) periodic shut-down of select turbines; or

(2) blade feathering at specific times of year; or

(3) an alternate plan agreed to between the Company and the Ministry of Natural Resources.

J11. If either of the bird mortality thresholds described in Conditions J5 (2), J5 (3) or J5 (4) is exceeded while monitoring is being implemented in accordance with Conditions J8 or J9, or if either of the bird mortality thresholds described in Conditions J5 (5) or J5 (6) is exceeded after mitigation is implemented in accordance with Condition J10, the Company shall contact the Ministry of Natural Resources and prepare and implement an appropriate response plan that shall include some or all 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.

REPORTING AND REVIEW OF RESULTS

J12. The Company shall report, in writing, the results of the post-construction disturbance monitoring described in Condition J3, to the Ministry of Natural Resources for three (3) years on an annual basis and within three (3) months of the end of each calendar year in which the monitoring took place.

J13. The Company shall report, in writing, bird and bat mortality levels to the Ministry of Natural Resources for three (3) years on an annual basis and within three (3) months of the conclusion of the November mortality monitoring, with the exception of the following:

(1) if either of the bird mortality thresholds described in Conditions J5 (5) or J5 (6) is exceeded , the Company shall report the mortality event to the Ministry of Natural Resources within 48 hours of observation;

(2) for any and all mortality 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, the Company shall report the mortality to the Ministry of Natural Resources within 24 hours of observation or the next business day;

(3) if the bat mortality threshold described in Condition J5 (1) is exceeded, the Company shall report mortality levels to the Ministry of Natural Resources for the additional three (3) years of monitoring described in Condition J6, on an annual basis and within three (3) months of the conclusion of the October mortality monitoring for each year;

(4) if either of the bird mortality thresholds described in Conditions J5 (2), J5 (3) or J5 (4) is exceeded for turbines located within 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Ministry of Natural Resources for the additional three (3) years of effectiveness monitoring described in Condition J8, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year;

(5) if either of the bird mortality thresholds described in Conditions J5 (2), J5 (3) or J5 (4) is exceeded for turbines located outside 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Ministry of Natural Resources for the additional two (2) years of cause and effects monitoring described in Condition J9, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year; and

(6) if the Company implements operational mitigation following cause and effects monitoring in accordance with Condition J9, the Company shall report mortality levels to the Ministry of Natural Resources for the three (3) years of subsequent effectiveness monitoring described in Condition J9, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year.

ENDANGERED SPECIES ACT REQUIREMENTS

J14. The Company shall ensure that any necessary authorizations under the Endangered Species Act (2007) have been obtained prior to the commencement of construction of the Facility in areas that support habitat for endangered or threatened species.

K - TRAFFIC MANAGEMENT PLANNING

K1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of Kincardine and Bruce County.

K2. Within three (3) months of having provided the Traffic Management Plan to the Municipality of Kincardine and Bruce County, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality of Kincardine and Bruce County.

K3. If a Road Users Agreement has not been signed with the Municipality of Kincardine and Bruce County within three (3) months of having provided the Traffic Management Plan to the Municipality of Kincardine and Bruce County, the Company shall provide a written explanation to the Director as to why this has not occurred.

L - ARCHAEOLOGICAL RESOURCES

L1. 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 O. Reg. 359/09.

L2. 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;

(2) 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.

M - COMMUNITY LIAISON COMMITTEE

M1. 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.

M2. 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.

M3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.

M4. 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.

M5. 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.

M6. 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.

M7. 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.

M8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.

M9. 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 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.

M10. 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.

N - CONSULTATION WITH NAV CANADA

N1. The Company shall implement instrument procedure mitigations measures identified in its report entitled Armow Wind Project Effects on Kincardine Airport, dated March 26, 2013, or take such other reasonable mitigation measures, in consultation with NAV Canada.

N2. The Company shall not erect any wind turbines affecting current or future instrument procedures prior to publication of all revised instrument procedures in the Canada Air Pilot.

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 P1, 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, operation, use and retiring of the Facility, the Company shall:

(1) create and maintain written records of any communications with Aboriginal communities; and

(2) make the written records available for review by the Ministry upon request.

S2. The Company shall provide the following to interested Aboriginal communities:

(1) updated 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, operation, use and retirement phases of the Facility, including notice of the commencement of construction activities at the project location.

S3. If an Aboriginal community requests a meeting to obtain information relating to the construction, installation, operation, use and retiring of the Facility, the Company shall make 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 any Aboriginal community considered likely to be interested or which has expressed an interest in such finds; and,

(2) if a meeting is requested by an Aboriginal community to discuss the archaeological find(s), make reasonable efforts to arrange and participate in such a meeting.

SCHEDULE A
Facility Description

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

(a) a total of ninety two (92) out of the proposed ninety eight (98) wind turbine generators, with a total name plate capacity of 180 megawatts;

(b) the proposed ninety eight (98) wind turbine generators are composed of:

- seven (7) Siemens SWT-2.3-101 wind turbine generators each rated at 2.3 megawatts generating output capacity with a total name plate capacity of up to approximately 16.1 megawatts, designated as source ID Nos. T10, T18, T32, T35, T73, T75 and T106, respectively, each with a hub height of 99.5 metres above grade;

- six (6) Siemens SWT-2.3-101 wind turbine generators each rated at 2.221 megawatts generating output capacity with a total name plate capacity of up to approximately 13.326 megawatts, designated as source ID Nos. T34, T60, T65, T102, T103 and T108, respectively, each with a hub height of 99.5 metres above grade;

- seven (7) Siemens SWT-2.3-101 wind turbine generators each rated at 2.126 megawatts generating output capacity with a total name plate capacity of up to approximately 14.882 megawatts, designated as source ID Nos. T30, T31, T51, T61, T89, T90 and T113, respectively, each with a hub height of 99.5 metres above grade;

- four (4) Siemens SWT-2.3-101 wind turbine generators each rated at 2.03 megawatts generating output capacity with a total name plate capacity of up to approximately 8.12 megawatts, designated as source ID Nos. T19, T50, T64 and T115, respectively, each with a hub height of 99.5 metres above grade;

- fifty three (53) Siemens SWT-2.3-101 wind turbine generators each rated at 1.903 megawatts generating output capacity with a total name plate capacity of up to approximately 100.86 megawatts, designated as source ID Nos. T6, T8, T9, T11, T12, T14, T15, T21, T22, T27-T29, T33, T36, T37, T40-T45, T47-T49, T52, T56, T59, T63, T66, T67, T69, T70, T74, T76-T79, T81, T82, T87, T88, T91, T92, T98-T101, T104, T107, T110, T111, T114 and T116, respectively, each with a hub height of 99.5 metres above grade;

- nineteen (19) Siemens SWT-2.3-101 wind turbine generators each rated at 1.824 megawatts generating output capacity with a total name plate capacity of up to approximately 34.656 megawatts, designated as source ID Nos. T4, T5, T7, T13, T23-T26, T57, T58, T83-T85, T94-T97, T105 and T112, respectively, each with a hub height of 99.5 metres above grade;

- one (1) Siemens SWT-2.3-101 wind turbine generator with a total name plate capacity of 2.126 megawatts, designated as source ID No. T80, with a hub height of 80 metres above grade; and

- one (1) Siemens SWT-2.3-101 wind turbine generator with a total name plate capacity of 2.03

megawatts, designated as source ID No. T68, with a hub height of 80 metres above grade;

and all sited at the locations shown in Schedule B;

(c) one (1) transformer substation including two (2) transformers, each transformer rated at 105 MVA and sited at the locations shown in Schedule B; and

(d) associated ancillary equipment, systems and technologies including on-site access roads, underground cabling and overhead distribution/transmission lines, interconnection equipment,

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:

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformers

Source ID	Maximum Sound Power Level (dBA)	Easting (m)	Northing (m)	Source description
T4	101	464682	4898466	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T5	101	466865	4898641	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T6	102	466690	4897755	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T7	101	466554	4897005	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T8	102	466884	4896882	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T9	102	467210	4896729	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T10	106	460785	4897921	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T11	102	462777	4897234	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T12	102	464367	4896252	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T13	101	465621	4895205	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T14	102	466182	4895442	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T15	102	466268	4895147	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T18	106	459810	4896249	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T19	103	460352	4896143	Siemens model SWT-2.3-101, 2.030 MW, hub 99.5 m
T21	102	462245	4894821	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T22	102	462622	4894878	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T23	101	462959	4894956	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T24	101	463039	4894395	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T25	101	463465	4894592	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T26	101	464009	4893522	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T27	102	464337	4893527	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T28	102	464666	4893553	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T29	102	465090	4893742	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T30	104	465060	4893097	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m
T31	104	465388	4893104	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m
T32	106	466845	4892281	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T33	102	458435	4894474	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T34	105	458746	4894479	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T35	106	465945	4890725	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T36	102	457280	4892873	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T37	102	457729	4893302	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T40	102	460681	4891076	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T41	102	461220	4891113	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T42	102	461614	4891037	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T43	102	461768	4890734	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformers (continued)

T44	102	461935	4890372	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T45	102	462426	4890172	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T47	102	463020	4889772	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T48	102	458346	4890486	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T49	102	460549	4889305	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T50	103	460839	4889178	Siemens model SWT-2.3-101, 2.030 MW, hub 99.5 m
T51	104	467371	4898626	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m
T52	102	468239	4898092	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T56	102	464971	4898601	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T57	101	465799	4897131	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T58	101	466148	4897228	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T59	102	464934	4895989	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T60	105	467413	4894276	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T61	104	460197	4896667	Siemens model SWT-2.3-101, 2.2216 MW, hub 99.5 m
T63	102	459822	4896943	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T64	103	465279	4890523	Siemens model SWT-2.3-101, 2.030 MW, hub 99.5 m
T65	105	463701	4891711	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T66	102	459648	4889504	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T67	102	458335	4892100	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T68	103	457127	4891173	Siemens model SWT-2.3-101, 2.030 MW, hub 80 m
T69	102	462419	4896959	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T70	102	462409	4892727	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T73	106	459708	4899129	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T74	102	457373	4897847	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T75	106	456855	4897632	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T76	102	458595	4890252	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T77	102	457961	4890664	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T78	102	458976	4890025	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T79	102	457000	4892740	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T80	104	456905	4891725	Siemens model SWT-2.3-101, 2.126 MW, hub 80 m
T81	102	457006	4898054	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T82	102	460147	4889442	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T83	101	462716	4892873	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T84	101	462437	4892354	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T85	101	463695	4893900	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T87	102	458708	4894168	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T88	102	462642	4894569	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T89	104	463573	4892018	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m
T90	104	465579	4890590	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m

Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators and Transformers (continued)

T91	102	463100	4897245	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T92	102	463725	4896277	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T94	101	465047	4896257	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T95	101	463309	4894916	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T96	101	464266	4894203	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T97	101	465289	4895208	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T98	102	463109	4890298	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T99	102	463549	4896523	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T100	102	460169	4891172	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T101	102	466788	4898947	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T102	105	467274	4894893	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T103	105	467729	4894074	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T104	102	458938	4890421	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T105	101	467373	4896459	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T106	106	468294	4896614	Siemens model SWT-2.3-101, 2.3 MW, hub 99.5 m
T107	102	466747	4894603	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T108	105	458941	4894875	Siemens model SWT-2.3-101, 2.221 MW, hub 99.5 m
T110	102	463381	4889634	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T111	102	463760	4889869	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T112	101	465221	4895826	Siemens model SWT-2.3-101, 1.824 MW, hub 99.5 m
T113	104	461259	4888833	Siemens model SWT-2.3-101, 2.126 MW, hub 99.5 m
T114	102	461585	4888655	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
T115	103	461956	4888538	Siemens model SWT-2.3-101, 2.030 MW, hub 99.5 m
T116	102	462694	4890339	Siemens model SWT-2.3-101, 1.903 MW, hub 99.5 m
West transformer	105.5	465609	4899626	
East transformer	105.5	465635	4899612	

*NOTE: The Sound Power Levels reported above for the Transformers include the 5 decibels (dB) adjustment for tonality as prescribed in Publication NPC-104.

Table B2: Maximum Sound Power Spectrums (dBA and dB Lin) for each of two (2) transformers

Two Armow Transformers (105 MVA, 240 kV)	Octave Band Centre Frequency (Hz)								
	63	125	250	500	1000	2000	4000	8000	Overall
Lw (dB A) for each transformer	81.9	94.0	96.5	101.9	99.1	95.3	90.1	81.0	105.5
Lw (dB) for each transformer	108.1	110.0	105.1	105.1	99.1	94.1	89.1	82.1	113.8

Note: The transformers' Sound Power Level values in the above table includes the 5 decibel (dB) adjustment for tonality as prescribed in Publication NPC-104.

SCHEDULE C

Noise Control Measures

Acoustic Barriers for two (2) 105 MVA Transformers:

One (1) four sided acoustic barrier, approximately 82 metres long and with a height at least 3.2 metres above the top of the transformer, shall be positioned around each of two transformers as per Figure 4-1 of the Acoustic Assessment Report. Each of two barriers shall have an opening on the north side to allow for equipment access. The acoustic barriers will have the absorptive coefficient of 0.85, and they will be continuous without holes, gaps and other penetrations, and having a surface mass at least 20 kilograms per square metres.

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. Conditions A3 and A4 are included to require the Company to provide information to the public and the local municipality.

3. Conditions A5, A6, and A8 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 A7 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. Conditions C1 and C2 are 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 C3, C4 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 and F 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. Conditions G, H, I, J, and K 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 L is included to protect archaeological resources that may be found at the project location.

11. Condition M is included to ensure continued communication between the Company and the local residents.

12. Condition N 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 O 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 P 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 Q 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 R is included to ensure continued communication between the Company and interested Aboriginal communities.

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 9th day of October, 2013

Vic Schroter, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

DZ/

c: District Manager, MOE Owen Sound
Brian Edwards, Samsung Renewable Energy Inc.