

**RENEWABLE ENERGY APPROVAL**NUMBER 3069-8NQQC7  
Issue Date: January 19, 2012

Gesner Wind Farm LP  
P.O. Box 6087, 1177 Perth St  
New Hamburg, Ontario  
N3A 2K6

Project: Gesner Wind Energy Project  
Location: Lots 15-17, Concession III and IV  
Chatham-Kent Municipality,  
N7M 5K8

*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) five (5) wind turbine generators each rated at 2 megawatts generating output capacity with a total name plate capacity of 10 megawatts, designated as source ID Nos. WTG1 to WTG5, each with a hub height of 90 metres above grade, and sited at the locations shown in Schedule A and as indicated in the supporting documentation submitted with the application; and
- (b) associated ancillary equipment, systems and technologies including supporting technical equipment, distribution lines and access roads;

all in accordance with the application for a Renewable Energy Approval, dated May 18, 2011 and signed by Ray Roth, General Manager/ Vice President, Saturn Power Inc., as agent of Gesner Wind Farm LP, and all supporting documentation submitted with the application including amended documentation submitted up to December 19, 2011.

*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 "*Acoustic Assessment Report for Gesner Wind Energy Project*", dated June, 13, 2011, prepared by HATCH and signed by Dave Patterson on August 3, 2011;
2. "Acoustic Audit - Emission" means an investigative procedure that is compliant with the IEC Standard 64000-11 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. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from wind facilities;
7. "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;
8. "Adverse Effect" has the same meaning as in the Act;
9. "Application" means the application for a Renewable Energy Approval dated May 18, 2011, and signed by Ray Roth, General Manager/ Vice President, Saturn Power Inc., and all supporting documentation submitted with the application, including amended documentation submitted up to December 19, 2011.
10. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
11. "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";

12. "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";
13. "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";
14. "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.
15. "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.
16. "Company" means Saturn Power GP Ltd., as general partner for Gesner Wind Farm LP, solely in connection with the conduct of business of that Limited Partnership, and includes its successors and assignees;
17. "Compliance Protocol for Wind Turbine Noise" means the Ministry document Compliance Protocol for Wind Turbine Noise, Guideline for Acoustic Assessment and Measurement, PIBS 8540e;
18. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
19. "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;

20. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
21. "Equipment" means the five (5) wind turbine generators and associated ancillary equipment identified in this Approval and as further described in the Application, to the extent approved by this Approval;
22. "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);
23. "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;
24. "IEC Standard 64000-11" means the International Standard IEC Standard 64000-11, Wind turbine generator systems – Part 11: Acoustic noise measurement techniques, 2006;
25. "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;
26. "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;
27. "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;
28. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
29. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
30. "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;
31. "Sound Level" means the A-weighted Sound Pressure Level;
32. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level  $L_{eq}$ ;

33. "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 ( $\mu\text{Pa}$ );
34. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure ( $\mu\text{Pa}$ ) of a sound to the reference pressure of 20  $\mu\text{Pa}$ ;
35. "UTM" means Universal Transverse Mercator coordinate system.

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

## **TERMS AND CONDITIONS**

### **GENERAL**

1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application.
2. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.
3. The Company shall ensure a copy of this Approval is:
  - (1) accessible, at all times, by Company staff operating the Facility and;
  - (2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated along with the Application.
4. If the Company has a website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.
5. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.
6. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.
7. 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.

## **EXPIRY OF APPROVAL**

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

## **NOISE PERFORMANCE LIMITS**

10. The Company shall ensure that:
  - (1) the Sound Levels from the Equipment, at the Points of Reception identified in Appendix C of the Acoustic Assessment Report, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable
  - (2) the Equipment is constructed and installed at either of the following locations:
    - a) at the locations identified in Schedule A of this Approval; or
    - b) at a location that does not vary by more than 10 metres from the locations identified in Schedule A of this Approval and provided that,
      - i) the Equipment will comply with Condition No. 10 (1); and
      - ii) all setback prohibitions established under O. Reg. 359/09 are complied with.
11. The locations identified in Table C.1 in Appendix C of the Acoustic Assessment Report as "POR ID" numbers 50-52, 55, 57-60, 65, 68-72, 74-76, and 79-136 are specified as Noise Receptors for the purposes of paragraph 2 of subsection 54 (1.1) of O. Reg. 359/09.
12. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition No. 10 (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.

13. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by the President, Saturn Power GP Ltd., as general partner for Gesner Wind Farm LP, that the UTM coordinates of the “as constructed” Equipment comply with the requirements of Condition No. 10 (2).

#### **ACOUSTIC AUDIT - IMMISSION**

14. 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 twelve (12) months that represent the lowest annual ambient sound levels, preferably:
    - (a) March and April, and
    - (b) October and November
15. 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 six (6) 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 twelve (12) 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.

#### **ACOUSTIC AUDIT - EMISSION**

16. 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 any one of the wind turbine generators rated at 2 megawatts generating output capacity, used in the Facility.
17. 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.

### **STORMWATER MANAGEMENT**

18. The Company shall employ best management practices for stormwater management and sediment and erosion control during construction, installation, use, operation, maintenance and retiring of the Facility, as outlined in the Application.

### **WATER TAKING ACTIVITIES**

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

### **BIRD AND BAT MONITORING**

20. The Company shall implement its Post-Construction Monitoring Plan submitted as part of the Application.
21. If the Company determines that it must deviate from its Post-Construction Monitoring Plan, the Company shall contact the Planning Ecologist at the Aylmer District Office of the Ministry of Natural Resources and the Director, prior to making any changes to the methodology in the Post-Construction Monitoring Plan, and follow any directions provided.
22. The Company shall contact the Planning Ecologist at the Aylmer District Office of the Ministry of Natural Resources and the Director if the mortality thresholds stated in its Post-Construction Monitoring Plan are reached for either birds or bats.

### **TRAFFIC MANAGEMENT PLANNING**

23. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Municipality of Chatham-Kent.



24. Within three (3) months of having provided the Traffic Management Plan to the Municipality of Chatham-Kent, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Municipality of Chatham-Kent.
25. If a Road Users Agreement has not been signed with the Municipality of Chatham-Kent within three (3) months of having provided the Traffic Management Plan to the Municipality of Chatham-Kent, the Company shall provide a written explanation to the Director as to why this has not occurred.

## **ARCHAEOLOGICAL RESOURCES**

26. 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 and Culture in order to comply with clause 22 (2) (b) of O. Reg. 359/09.
27. 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 and Culture's *Standards and Guidelines for Consultant Archaeologists*; and
  - (3) notify the Director as soon as reasonably possible.

## **OPERATION AND MAINTENANCE**

28. Before construction and installation of the Equipment, the Company shall prepare a written manual for use by Company staff outlining the operating procedures and a maintenance program for the Equipment that includes as a minimum the following:
  - (1) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
  - (2) emergency procedures;
  - (3) procedures for any record keeping activities relating to operation and maintenance of the Equipment; and
  - (4) all appropriate measures to minimize noise emissions from the Equipment.
29. The Company shall;

- (1) update, as required, the manual described in Condition No. 28; and
  - (2) make the manual described in Condition No. 28 available for review by staff of the Ministry upon request.
30. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition No. 28.

## **RECORD CREATION AND RETENTION**

31. The Company shall create written records consisting of the following:
- (1) an operations log summarizing the operation and maintenance activities of the Facility;
  - (2) within the operations log, a summary of routine and Ministry staff inspections of the Facility; and
  - (3) a record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility.
32. A record described under Condition No. 31(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.
33. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition No. 31, and make these records available for review by staff of the Ministry upon request.

## **NOTIFICATION OF COMPLAINTS**

34. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.
35. The Company shall provide the District Manager with the written records created under Condition No. 32 within eight (8) business days of the receipt of the complaint.

## **CHANGE OF OWNERSHIP**

36. 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.

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### SCHEDULE A

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

	Description of Source	Source ID	Co-ordinates UTM (NAD 83 z17)	
			East (m)	North (m)
1	Gamesa G97 – 2 MW	WTG1	438,829	4,708,431
2	Gamesa G97 – 2 MW	WTG2	437,817	4,707,719
3	Gamesa G97W – 2 MW	WTG3	439,471	4,707,807
4	Gamesa G97W – 2 MW	WTG4	439,609	4,706,937
5	Gamesa G97W – 2 MW	WTG5	438,473	4,708,137

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

## **REASONS**

1. Condition Nos. 1 and 2 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 Nos. 3 and 4 are included to require the Company to provide information to the public and the local municipality.
3. Condition Nos. 5 and 6 are included to ensure that final retirement of the Facility is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure long-term protection of the health and safety of the public and the environment.
4. Condition No. 7 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 Nos. 8 and 9 are intended to limit the time period of the Approval.
6. Condition Nos. 10 and 11 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. Condition Nos. 12 and 13 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. Condition Nos. 14 to 17 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 Nos. 18 to 25 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 Nos. 26 and 27 are included to protect archaeological resources that may be found at the project location.
11. Condition Nos. 28 to 30 are included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, O.Reg. 359/09 and this Approval.
12. Condition Nos. 31 to 33 are included to require the Company to keep records and provide information to staff of the Ministry so that compliance with the Act, O.Reg. 359/09 and this Approval can be verified.
13. Condition Nos. 34 and 35 are included to ensure that any complaints regarding the construction, installation, use, operation, maintenance or retirement of the Facility are responded to in a timely and efficient manner.
14. Condition No. 36 is included to ensure that the Facility is operated under the corporate name which appears on the application form submitted for this Approval and to ensure that the Director is informed of any changes.

## **NOTICE REGARDING HEARINGS**

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

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

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

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

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

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;

7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

*This notice must be served upon:*

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

AND

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

AND

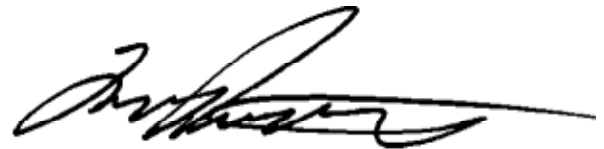
The Director  
Section 47.5, *Environmental Protection Act*  
Ministry of the Environment  
2 St. Clair Avenue West, Floor 12A  
Toronto, Ontario  
M4V 1L5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or [www.ert.gov.on.ca](http://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](http://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 19th day of January, 2012



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Ian Parrott, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

DM/

c: District Manager, MOE Windsor  
Sean Male, Hatch