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April 15, 2016

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

Dear Ms. Walli:

Re: SP Belle River Wind LP (EB-2016-0008)

In accordance with Procedural Order No. 1 in the above-referenced proceeding, we enclose SP Belle River Wind LP's interrogatory responses.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Taylor". The signature is fluid and cursive, with a large initial "A" and a long, sweeping tail.

Andrew Taylor

Interrogatory No. 1: Transmission Line Routing

References: Ex. B/Tab. 1/Schedule 2

Paragraph 4. i. The Wind Farm and Collector System – “Its location was established based on interest expressed by local landowners, the availability of wind resources and availability of existing infrastructure for connection to the electrical grid”.

a) Please provide documents indicating support of local landowners.

Response:

The "Wind Farm and Collector System" pertains to the wind turbines and the low voltage lines that will distribute the electricity generated by the turbines to the Joe Byrne Substation. Paragraph 4.i. does not pertain to the proposed Transmission Line. Local support for the "Wind Farm and Collector System" is demonstrated through the execution of Options to Lease / Options for Easement agreements with approximately 70 landowners representing 114 parcels and 7,750 acres.

b) Please advise whether the Applicant has consulted with the municipality and / or landowners adjacent to the proposed line route and any documents pertaining to any discussions with or comments from adjacent landowners.

Response:

As part of Ontario Regulation 359/09, the Applicant has held 2 separate public open houses and has had all documentation submitted to the Municipality and published on a project website (<http://www.belleriverwind.com/project-documents>) for public review and comment. Various transmission route options, including the proposed route, were included in these consultation materials.

c) With respect to connection to the electrical grid, what other locations were considered other than the proposed connection location? Why is the proposed location the preferred one? How would preferred and alternative locations impact transmission line routing?

Response:

Two additional points of interconnect were considered during the planning process. They were:

- West POI: the south/west property where the Hydro One Corridor intersects Myers Road ROW; and
- Middle POI: the south/east property where the Hydro One Corridor intersects Lakeshore 123 ROW.

The reasons for selecting the proposed point are:

- The proposed point is the closest point to the project substation, thereby minimizing the length of the transmission line, as compared to the alternate sites;
- The configuration of the switchgear at the proposed point minimizes the amount of infrastructure required at the Brody Switching Station, as compared to the alternate sites;
- The proposed point is least impactful from an archaeological resources perspective, as compared to the alternate sites;
- The route to the proposed point contains the least amount of existing service infrastructure, as compared to that of the alternate sites.

Paragraph 4.iii. The Transmission Line – “The horizontal and vertical clearance of Transmission Line from ground will be as per CSA C22.3 1-06 Standard”.

a) Please advise whether there are any CSA or other standards applicable to setbacks of 230 kV transmission lines from residential homes and schools?

Response:

There are no CSA or other standards applicable to setbacks of 230 kV transmission lines that apply specifically to residential homes and schools. Rather, clearances for "buildings" which would include residential homes and schools is contained in CSA C22.3 No.1 "Overhead Systems" clause 5.7.3:

"Clearances of wires and conductors passing or over buildings, signs, billboards, lamps, traffic signs, standards, and antennas (not attached)"

Paragraph 4.iii. The Transmission Line Components – "Along the proposed route, the Transmission Line will require approximately 8-10 meters of width within the municipal road allowance".

a) Please confirm whether there is sufficient width of 8-10 meters within the municipal road allowance along the entire proposed route as described in the paragraph "Proposed Transmission Route" to accommodate the transmission line? If not would private landowner easements be required?

Response:

The transmission line will be constructed within Essex County and Lakeshore Township public road allowances. The width of the public road allowances varies from 15m to 20m, therefore there is more than 8-10 meters of width to accommodate the transmission line. The proposed transmission structures have all phase conductors and shieldwire located on the roadside of the transmission line centerline. Transmission structures are located 1.5m to 2.5m from property boundaries within municipal road allowance. The conductor clearance is designed for vehicular traffic below according to CSA C22.3 No.1 Table 2 and municipal requirement. The transmission line design will ensure all part of the infrastructures will remain within the right allowance under all weather conditions.

References: Ex. C/Tab. 2(ii) /Maps - The Transmission Line

a) Among the maps filed with this exhibit is drawing 1523-P001-S0-S7, by Chimax Inc. which has not been stamped by a professional engineer. Please advise whether these drawings were prepared by a professional engineer? What engineering disciplines were involved in the preparation of these drawings?

Response:

The drawing 1523P001-S0-S7 was reviewed and approved by a Professional Engineer registered in the province of Ontario employed by Chimax. Chimax is a civil and structural design engineering company and is working for electrical utility and private energy development industry designing transmission line, station layout and civil and structural design of stations for over 20 years.

A competent civil and structural team having more than 15 years of experience in transmission line design participated in the preparation of these drawings.

References: Ex. C/Tab. 3(ii) & (iii) /Illustrations – Single Line Diagram of The Joe Byrne Substation, Single Line Diagram of The Brody Switching Station

a) Drawings 176408-100-DF00-SLD-0001.001, 176408-200-DF00-SLD-0001.001 prepared by AMEC have been stamped by a Professional Engineer. What engineering disciplines were involved in the preparation of this drawing and design?

Response:

The drawings 176408-100-DF00-SLD-0001.001, 176408-200-DF00-SLD-0001.001 were stamped by a professional senior electrical engineer. The only discipline involved in these drawings was the electrical engineering discipline.

References: Ex. C/Tab. 3(v)&(vi) /Illustrations – Joe Byrne Substation Layout Drawing, Brody Switching Station Layout Drawings

a) Drawings 1523-E101, 1523-E202 by Chimax Inc. have not been stamped by a professional engineer. Have these drawings been prepared by a professional engineer? What engineering disciplines were involved in the preparation of these drawings?

Response:

The drawing 1523-E101 and 1523-E102 was reviewed and approved by a Professional Engineer registered in the province of Ontario and employed by Chimax. Chimax is a civil and structural design engineering company and is working for electrical utility and private energy development industry designing transmission line, station layout and civil and structural design of stations for over 20 years.

A competent civil and structural team having more than 30 years of experience in electrical substation design has participated in the preparation of these drawings according to Amec single line diagrams.

References: Ex. C/Tab. 3(vii) /Illustrations – Transmission Line Plan and Profile Drawings

a) Drawing 1523-P002-S01-S06, by Chimax Inc. have not been stamped by a professional engineer. Have these drawings been prepared by a professional engineer? What engineering disciplines were involved in the preparation of these drawings?

Response:

The drawing 1523-P002-S01-S07 was reviewed and approved by a Professional Engineer registered in the province of Ontario employed by Chimax. Chimax is a civil and structural design engineering company and is working for electrical utility and private energy development industry designing transmission line, station layout and civil and structural design of stations for over 20 years.

A competent civil and structural team having more than 15 years of experience in transmission line design has participated in the preparation of these drawings.

References: Ex. C/Tab. 3(iii) /Illustrations – Tower Design Illustrations and Tab. 3(vii) /Illustrations – Transmission Line Plan and Profile Drawings

a) Would any portion of the spans of transmission line between the poles to be located on Municipal Road allowances sag or swing under certain weather conditions (E.g. heavy winds, ice buildup) and would the lines swing over nearby private properties?

Response:

The design of the proposed transmission line follows CSA C22.3 No.1 "Overhead Systems" and CSA C22.3 No.60826 "Design criteria of overhead transmission lines". In addition to standard swing clearance under CSA C22.3 No.1 clause 5.2.7 "Wire or conductor swing for horizontal clearances" under 290 Pa(78.3km/hr)wind, the transmission line conductor swings also evaluate under 1 in 50 years gust wind conditions (based on hourly wind of 99 km/hr) as per CSA C22.3 No.60826 design conditions.

b) Are there any ESA, CSA or other standards that address lateral swing of transmission lines?

Response:

See part a) answer.

c) Are there ESA, CSA or any other standards with respect to the grounding of steel galvanized pole structures?

Response:

All transmission line poles will be grounded to grounding electrodes to achieve required ground resistivity as per grounding design according to CSA C22.3 No.1 clause 9.1.2 "Ground resistance requirement" and IEEE Std. 1243 "IEEE Guide for Improving the Lightning Performance of Transmission Lines". There are no ESA or other standards with respect to the grounding of steel galvanized pole structures.

d) What ESA or other approvals will be required prior to the energization of the transmission line?

Response:

The transmission line design will be submitted to ESA for plan approval according to ESA Rule 2-010. During construction, ESA inspector will perform their inspection processes. Final ESA inspection will take place upon completion of the construction and "Permit to Connect" will be issued by ESA. No other approvals are required prior to energization.

e) Are there any municipal bylaws, zoning or other requirements regarding placement of steel poles within the proposed municipal road allowance and / or setback from private property?

Response:

The Essex County Highways Best Management Practice Manual and MTO Roadside Safety Manual govern structure placement located in road allowance to ensure traffic safety. The Applicant will comply with both of these manuals, the relevant sections of which are appended to this document.

Interrogatory No. 2: Land Matters

References: Ex. E/Tab 1/Sch. 1

a) With respect to the Joe Byrne Substation and the Brody Switching Station, please confirm that the two affected property owners involved have received independent legal advice regarding executing the Lease Option and lease Agreement. What is the current status of these agreements?

Response:

The Applicant confirms that both affected property owners have received, or are receiving, independent legal advice. In the case of the Joe Byrne Substation, the Option to Lease has been executed, and the Lease is in the final stages of legal review. For the Brody Switching Station, the Lease is also in the final stages of legal review. We anticipate execution of both leases imminently.

b) What is the status of the Road Use Agreements with the Town of Lakeshore and County of Essex?

Response:

Both Road Use Agreements are in the late-to-final stages of negotiation with the Town of Lakeshore and the County of Essex. We do not anticipate any major obstacles towards execution.

c) Will the Applicant require temporary land rights (for example during construction) from the two private landowners?

Response:

The Applicant will not require temporary land rights from the two private landowners. All required land access rights are contemplated within their Lease agreements.

d) With respect to the proposed transmission route has the Applicant completed surveys by a licenced surveyor between BR-29 to BR32 to determine if the proposed route will impact any of the landowners? Will the foundations of these poles impact any landowner's property? Will the installations of these poles require temporary land rights for construction?

Response:

The Applicant confirms that the route has been surveyed and that data has been incorporated into the submitted drawings and designs. There are no anticipated impacts to the landowners, and it is not anticipated that any private land rights, temporary or otherwise, will be required for construction or operation.

Interrogatory No. 3: Status of REA

Reference: Ex. B/Tab. 1/Sch. 2 paragraph 6

a) This exhibit indicates that the REA application was deemed complete on July 29, 2015. Has the Applicant received a final MOE decision? Please file the MOE's decision if one has been issued. If the REA has been approved has any appeal of the decision been made to the ERT?

Response:

The REA for this project was approved on January 13, 2016. There was no subsequent appeal on this decision.

Interrogatory No. 4: Project Schedule

References: Ex. B/Tab. 1/Sch. 2 paragraph 7

a) Please update the Project Schedule at the above reference if the schedule has changed.

Response:

At this time, the Project Schedule presented remains unchanged.

Essex County Highways
Best Management Practice Manual Excerpt



ESSEX COUNTY HIGHWAYS BEST MANAGEMENT PRACTICE MANUAL

CHAPTER: Encroachments

Procedure No.
ECH-R02-04

Page Number
4 of 7

SECTION: Utilities

EFFECTIVE DATE:
May 9, 2009

5.4 Utility Poles

5.4.1 *Tangent*

- For new construction or major reconstruction, every effort should be made to install or relocate utility poles beyond the utility pole offset given in Table 2.4B.

5.4.2 *Curves*

- Utility pole offsets on the inside and outside of curves are obtained by multiplying the standard utility pole offset (Table 2.4B) by the appropriate curve correlation factor (provided in Table 2.4C) and rounding up to the nearest 0.5 metres. The corrected curve is shown in Figure 2.4.2.

Table 2.4B Minimum Utility Pole Offset

Design Speed km/h	Utility Pole Offset (m)			
	AADT ≥ 6000	AADT ≥ 1500	AADT ≥ 750	AADT < 750
120	10	8	7	6
110	9	7	6	5
100	7	6	5	4
90	6	5	4	4
80	5	4	4	4
70	4	3	3	3
60 or less	3	3	3	3
60 or less with barrier curb	0.5	0.5	0.5	0.5



ESSEX COUNTY HIGHWAYS BEST MANAGEMENT PRACTICE MANUAL

CHAPTER: Encroachments

Procedure No.
ECH-R02-04

Page Number
5 of 7

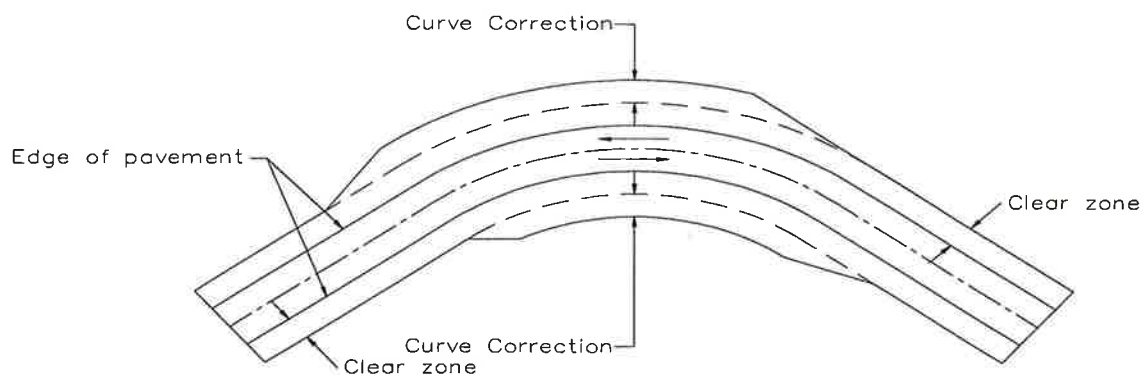
SECTION: Utilities

EFFECTIVE DATE:
May 9, 2009

Table 2.4C Curve Correlation Factors

Radius (m)	Design Speed (km/hr)						
	60	70	80	90	100	110	120
1000	1.00	1.00	1.00	1.00	1.00	1.00	1.00
900	1.07	1.09	1.11	1.15	1.19	1.24	1.31
800	1.08	1.10	1.13	1.17	1.23	1.28	1.34
700	1.09	1.12	1.15	1.20	1.25	1.32	1.43
600	1.10	1.14	1.17	1.23	1.29	1.37	1.46
500	1.11	1.16	1.22	1.27	1.35	1.44	-
400	1.14	1.19	1.27	1.35	1.42	-	-
350	1.17	1.23	1.31	1.39	-	-	-
300	1.20	1.27	1.35	1.46	-	-	-
250	1.22	1.32	1.42	-	-	-	-
220	1.25	1.35	-	-	-	-	-
200	1.29	1.40	-	-	-	-	-
180	1.32	1.45	-	-	-	-	-
150	1.35	-	-	-	-	-	-
120	1.4	-	-	-	-	-	-
100	1.5	-	-	-	-	-	-
50	1.75	-	-	-	-	-	-

Figure 2.4.2: Utility Pole Offset Extensions on Curve



MTO Roadside Safety Manual Excerpt

2.2 CLEAR ZONE POLICY

OVERVIEW

A significant number of serious accidents and injuries can be reduced if a clear zone is provided. This clear zone must be traversable, and should be free of obstacles such as unyielding landscaping, sign supports and light poles, non traversable ditches or drainage structures, and steep slopes. Vehicles striking barriers and energy attenuators can cause some occupant injury and/or vehicle damage. It is, therefore preferable to eliminate the need for these by either removing the hazard or reducing its severity.

For background information on the clear zone concept, refer to Chapter 1, Section 1.2.3. Refer also to Chapter 1, Section 1.4 for Risk Acceptance.

DEFINITION

Clear zone width is defined as the distance from the edge of the travelled portion of the roadway to the face of an unprotected hazard. This clear zone must be traversable, allowing errant vehicles to recover or come to a safe stop. Any hazards which remain within this offset must be either removed or shielded. The clear zone relative to the traffic in the opposite direction is typically measured from the centreline.

At locations where traversable nonrecoverable embankments are within the clear zone, and do not require protection according to the Embankment Warrant Guide, Chapter 2, Section 2.5.1, the clear zone definition is modified and is measured from the toe of the non-recoverable slope. Since it is expected that vehicles leaving the roadway may be in the process of braking a design speed 20 km less than that of the roadway may be used to calculate the clear zone offset from the toe of slope. Refer to example 3, Chapter 2, Section 2.5.

JUDGEMENT

The designer should use judgement when applying the clear zone offsets. Where the cross section or slope of the terrain tends to channel errant vehicles towards a hazard outside the clear zone, or for critical isolated hazards, such as permanent bodies of water, bridge piers, rock outcrops, etc., just beyond the clear zone, where the consequences of a collision may be extremely severe, consideration should be given to providing protection for the motorist. The designer should be aware that the clear offsets provide degree of protection for approximately 80% of errant vehicles. While this may be a cost-effective measure across the entire system, in isolated, high risk locations, the clear zone offsets should be exceeded, especially when there is little or no additional cost involved in doing so. The key consideration is driver expectancy of a hazard and the risk exposure. Conversely, if isolated objects, say trees, are found to be just within the zone, while other trees in the immediate vicinity are outside the clear zone, removal of the tree inside the hazard zone will not significantly reduce the risk to motorists. Protection or removal may not be necessary in this case. See Figure 2.2.2.

2.2.1 CLEAR ZONE WIDTH - TANGENT

This section specifies the clear zone offsets to be used on Provincial Highways on tangent sections.

POLICY

ANY HAZARDS WITHIN THE CLEAR ZONE WHICH CANNOT BE REMOVED OR MADE FORGIVING MUST BE PROTECTED BY AN APPROVED BARRIER SYSTEM OR CRASH CUSHION. ON LOWER VOLUME ROADS THE CLEAR ZONE MAY BE REDUCED TO THE OFFSETS SHOWN IN PART B TABLE 2.2.1, SUBJECT TO AN OPERATIONAL REVIEW AS OUTLINED BELOW.

The Clear Zone offsets to be applied on tangent road sections are shown in Table 2.2.1.

For curved roadways, refer to Section 2.2.2. For risk acceptance refer to Chapter 1, Section 1.4.

APPLICATION

The clear zone offsets apply to permanent hazards. It should not be used as justification for providing protection from opposing traffic such as locations with narrow medians with low volumes or nested ramps. The median barrier warrant guide, Figure 2.10, applies in the former situation.

OPERATIONAL REVIEW

General

It is normal practise for a traffic analyst to review the following material and compare the application, use and resultant performance against other similar locations that have been established as acceptable and hence represent benchmarks to which all remaining installations will be compared. This may be done from a municipal perspective, a regional view, or from a province wide overview. It is the responsibility of the traffic analyst to identify any operational concerns along with the determined cause and relay these concerns to the designer.

Table 2.2.1
Clear Zone Widths - Tangent Road Sections

*Design Speed km/h	**Clear Zone Width (m)				
	A		B		
	AADT ≥ 6000		AADT ≥ 1500	AADT ≥ 750	AADT < 750
120	10		8	7	6
110	9		7	6	5
100	7		6	5	4
90	6		5	4	4
80	5		4	4	4
70	4		3	3	3
60 or less	3		3	3	3
60 or less with barrier curb	0.5		0.5	0.5	0.5

** For point of measurement see "definition"

* For explanation of Design Speed refer to the Geometric Design Manual

Refer to Section 2.2.3 for application of the Clear Zone in urban areas.

On any project where these offsets cannot be cost-effectively accommodated and protection is not provided, a statement in the design criteria will indicate this fact. Approval of the Design Criteria Committee will be required. Justification for reduced offsets will be retained in the project file.

Procedure

Operational analysis typically includes a review of:

- Motor Vehicle Accident Reports with the focus on determining causal factors including the influence of roadway geometrics. Typically reviews will focus on the following information:
 - injury/occupant ratios
 - injury severity (i.e. fatals, major injuries, minor, etc.)
 - injuries/collision
 - vehicle damage severity
 - sequence of events
 - driver action
 - location on/off roadway
 - fixed object involvement/offset from roadway
 - environmental considerations
 - visibility conditions
 - vehicle condition
- Volume information initially to determine flow patterns and future growths/demands. This data is combined with accident data to produce accident rates so that the operation may be compared to benchmarks representing operations elsewhere in the Province. Volume data is used to produce the following information;
 - General characteristics such as AADT
 - Traffic composition
 - Turning movement information
- Geometric information in conjunction with accident data and volume data to assess general highway characteristics. Reviews generally assess the use of standards versus as constructed and attempts to determine the role if any that roadway geometrics may have played in the day to day operation or in the occurrence of accidents. The analyst should review the following geometric concerns;

- vertical and horizontal alignment
 - number of through lanes
 - existence of auxiliary lanes
 - shoulder width and surface condition
 - traffic barrier types and location
 - median types/widths
 - curb and gutter type/location
 - sidewalk locations
 - structure locations/clearance/capacity for traffic (vehicular and pedestrian)
- Existing traffic control devices in conjunction with accident data, volume data, and knowledge of geometric conditions to determine what role if any that the presence of absence of traffic control devices may have had on the day to day operations or what manner it may have contributed to a motor vehicle accident. The analyst must review the location, position, and functionality of the following devices;
 - traffic signals
 - signing/delineation
 - pavement marking
 - special devices (i.e. railway gates, etc.)

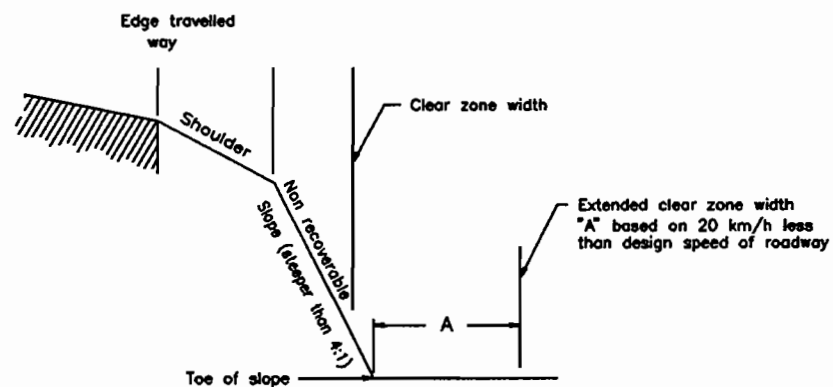


Figure 2.2.1 Extension of Design Clear Zone

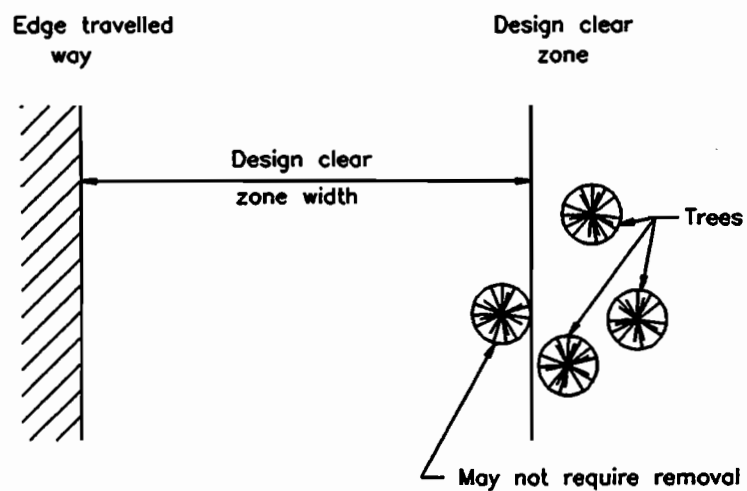


Figure 2.2.2 Decrease in the clear zone to accommodate judgement

2.2.2 CLEAR ZONE WIDTH - CURVE

Vehicles out of control while travelling on a horizontal curve can be expected to travel further away from the roadway due to centrifugal forces on the outside and due to the driver tendency to oversteer on the inside. The tangent clear zone offsets must therefore be increased to compensate for this.

POLICY

CLEAR ZONE WIDTHS ON BOTH THE INSIDE AND OUTSIDE OF HORIZONTAL CURVES MUST BE INCREASED, TO ALLOW FOR THE CENTRIFUGAL FORCE ON THE OUTSIDE, AND THE TENDENCY TO OVER STEER ON THE INSIDE.

Table 2.2.2 Provides curve correction factors for increasing clear zone widths on the inside and outside of curved road sections.

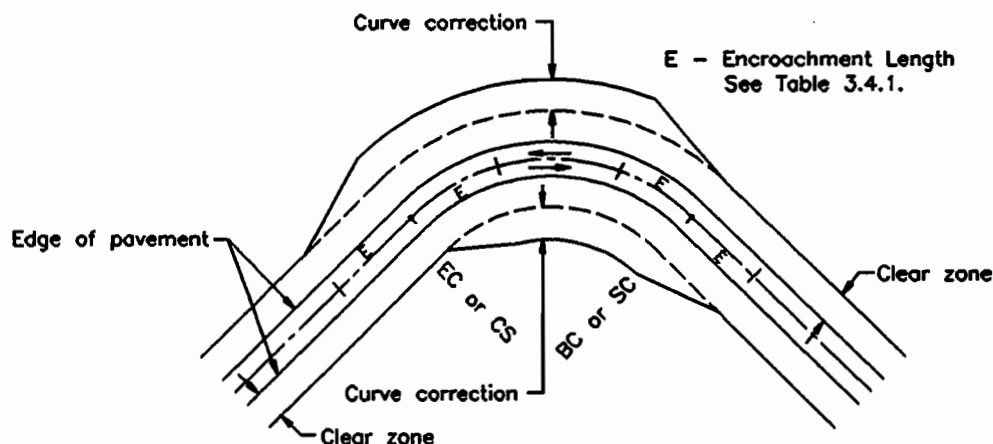


Figure 2.2.3 Clear Zone Extension on Curve

PROCEDURE

Total clear zone widths on the outside and inside of curves are obtained by multiplying the clear zone widths for tangents, (Table 2.2.1) by the appropriate curve correlation factor (provided in Table 2.2.2) and rounding to the nearest 0.5 metre. Exceptions to the clear zone width are to be treated as shown in Section 2.2.1.

Table 2.2.2
Curve Correlation Factors

Radius (m)	Design Speed (km/hr)						
	60	70	80	90	100	110	120
1000	1.00	1.00	1.00	1.00	1.00	1.00	1.00
900	1.07	1.09	1.11	1.15	1.19	1.24	1.31
800	1.08	1.10	1.13	1.17	1.23	1.28	1.34
700	1.09	1.12	1.15	1.20	1.25	1.32	1.43
600	1.10	1.14	1.17	1.23	1.29	1.37	1.46
500	1.11	1.16	1.22	1.27	1.35	1.44	-
400	1.14	1.19	1.27	1.35	1.42	-	-
350	1.17	1.23	1.31	1.39	-	-	-
300	1.20	1.27	1.35	1.46	-	-	-
250	1.22	1.32	1.42	-	-	-	-
220	1.25	1.35	-	-	-	-	-
200	1.29	1.40	-	-	-	-	-
180	1.32	1.45	-	-	-	-	-
150	1.35	-	-	-	-	-	-
120	1.4	-	-	-	-	-	-
100	1.5	-	-	-	-	-	-
50	1.75	-	-	-	-	-	-

2.2.3 CLEAR ZONE - URBAN AREAS

The offsets shown in Table 2.2.1 may not always be practical in urban centres. In these communities, utility poles, fire hydrants, etc. may be located immediately adjacent to the roadway. Removal or relocation may not be possible, and shielding with guide rails may not be practical, due to the number of entrances and crossings.

GUIDELINE

In urban areas where the operating speed is 60 km/h or less, a barrier curb may be used to shield hazards, provided the clear zone offsets cannot be met and removal or relocation is not practical. Also refer to Sections 6.3 to 6.7.

REA Approval

RENEWABLE ENERGY APPROVALNUMBER 2765-A4ER2P
Issue Date: January 13, 2016

SP Belle River Wind GP Inc. as the general partner for and
on behalf of SP Belle River Wind LP
2050 Derry Rd W 2nd Floor
Mississauga, Ontario
L5N 0B9

Project Belle River Wind Project
Location: south of Belle River County Road 42 to the north,
Lakeshore Road 111 to the west, Highway 401/South
Middle Road to the south, and Comber Sideroad to the east
Lakeshore Town, County of Essex

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 up to 100 megawatts (MW).

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 "Belle River Wind Project - Renewable Energy Approval Application - Noise Impact Assessment", dated November 27, 2015, prepared by DNV GL - Energy and signed by Shant Dokouzian P.Eng., C. Edwards and J-T Lee;
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 - Transformer Substation" means an investigative procedure that is compliant with the IEEE Standard C57.12.90 consisting of measurements and/or acoustic modelling of all noise sources comprising the transformer substation assessed to determine compliance with the Sound Power Level specification of the transformer substation described in the Acoustic Assessment Report;
7. "Acoustic Audit Report - Transformer Substation" means a report presenting the results of the Acoustic Audit - Transformer Substation;
8. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from wind facilities;
9. "Act" means the Environmental Protection Act, R.S.O 1990, c.E.19, as amended;
10. "Adverse Effect" has the same meaning as in the Act;
11. "Application" means the application for a Renewable Energy Approval dated May 26, 2015, and signed by JT Lee, Director, SP Belle River Wind GP Inc., as general partner for and on behalf of SP Belle River Wind LP, and all supporting documentation submitted with the application, including amended documentation submitted up to the date this Approval is issued;
12. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.4 of the Act, including any schedules to it;
13. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";
14. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
15. "CAN/CSA Standard 61400-11:07" means the "Wind turbine generator systems – Part 11: Acoustic noise measurement techniques", dated October 2007;

16. "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";
17. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas:
 1. sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours);
 2. low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours);
 3. no clearly audible sound from stationary sources other than from those under impact assessment.
18. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
 1. a small community with less than 1000 population;
 2. agricultural area;
 3. a rural recreational area such as a cottage or a resort area; or
 4. a wilderness area.
19. "Company" means SP Belle River Wind GP Inc., as general partner for and on behalf of SP Belle River Wind LP, the partnership under the laws of Ontario and includes its successors and assignees;
20. "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;
21. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
22. "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;
23. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
24. "Equipment" means the forty six (46) wind turbine generators and one (1) transformer substation, identified in this Approval and as further described in the Application, to the extent approved by this Approval;

25. "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);
26. "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;
27. "IEEE Standard C57.12.90" means the IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers, 2010;
28. "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;
29. "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;
30. "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;
31. "Noise Receptor" has the same meaning as in O. Reg. 359/09;
32. "Publication NPC-233" means Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995;
33. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
34. "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;
35. "Sound Level" means the A-weighted Sound Pressure Level;
36. "Sound Level Limit" is the limiting value described in terms of the one hour A-weighted Equivalent Sound Level L_{eq} ;
37. "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;
38. "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);

39. "Sound Pressure Level" means twenty times the logarithm to the base 10 of the ratio of the effective pressure (μPa) of a sound to the reference pressure of $20 \mu\text{Pa}$;
40. "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 responsible for agriculture in Ontario at that time 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 not construct or operate more than forty one (41) out of the forty six (46) wind turbine generators identified in the Schedule B of the Approval;

B - EXPIRY OF APPROVAL

- B1. Construction and installation of the Facility must be completed within three (3) years of the later of:
- (1) the date this Approval is issued; or
 - (2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
- B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition B1.

C - NOISE PERFORMANCE LIMITS

- C1. The Company shall ensure that:

- (1) the Sound Levels from the Equipment, at the Points of Reception identified in the Acoustic Assessment Report, comply with the Sound Level Limits set in the Noise Guidelines for Wind Farms, as applicable, and specifically as stated in the table below:

Wind Speed (m/s) at 10 m height	at or below 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. If the Company determines that some or all of the Equipment cannot be constructed in accordance with Condition C1(2), prior to the construction and installation of the Equipment in question, the Company shall apply to the Director for an amendment to the terms and conditions of the Approval.
- C3. Within three (3) months of the completion of the construction of the Facility, the Company shall submit to the Director a written confirmation signed by an individual who has the authority to bind the Company that the UTM coordinates of the "as constructed" Equipment comply with the requirements of Condition C1(2).
- C4. Prior to construction and installation of the transformer substation 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 transformer 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.

D – CONFIRMATION OF VACANT LOT NOISE RECEPTORS

- D1. The locations identified as vacant lot receptor in Appendix C of the Acoustic Assessment Report are specified as Noise Receptors for the purposes of subsection 54 (1.1) of O. Reg. 359/09 and subsection 35 (1.0.1) 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 on two (2) separate occasions at five (5) different Points of Reception that represent the location of the greatest predicted noise impacts, i.e., the highest predicted Sound Levels, and that are located in the direction of prevailing winds from the Facility;

- (3) if any of the five (5) Points of Reception cannot be selected on the basis of the criteria described in Condition E1(2) due to access restrictions or for any other reason, the Company must select alternate Points of Reception or locations (other than a Point of Reception), and must provide a clear written explanation to the Director and District Manager prior to undertaking the acoustic audit measurements as to why the criteria described in Condition E1(2) could not be met and the basis for selecting the alternate Points of Reception or locations. The Company must obtain the written agreement of the Director, and follow any directions provided, for the use of these alternate Points of Reception or locations prior to proceeding with the acoustic audit measurements.

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 twelve (12) months after the commencement of the operation of the Facility, or such other date as agreed to in writing by the Director, for the first of the two (2) acoustic audit measurements at the five (5) different Points of Reception; and
- (2) no later than eighteen (18) months after the commencement of the operation of the Facility, or such other date as agreed to in writing by the Director, for the second of the two (2) acoustic audit measurements at the five (5) different Points of Reception.

E3. The Company shall carry out an Acoustic Audit - Transformer Substation and shall submit to the Director and the District Manager an Acoustic Audit Report – Transformer Substation prepared by an Independent Acoustical Consultant, in accordance with Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended, and no later than six (6) months after the commencement of the operation of the Facility.

E4. In addition to the requirements described in Condition E3, the Acoustic Audit - Transformer Substation must include a compliance summary of the measurement results and the transformer sound data contained in Appendix B of the Acoustic Assessment Report. The following items must be included in the compliance summary:

- (1) transformer sound power levels (overall level and frequency spectra in octave bands); and
- (2) a statement that the transformer overall A-weighted sound power levels do not exceed the maximum sound power levels specified in the Schedule B of the Approval.

F - ACOUSTIC AUDIT- EMISSION

F1. The Company shall carry out an Acoustic Audit - Emission of the acoustic emissions produced by the operation of the wind turbine generators in accordance with the following:

- (1) the acoustic emission measurements shall be undertaken in accordance with the CAN/CSA Standard C61400-11:07;

- (2) the acoustic emission measurements shall be performed by an Independent Acoustical Consultant; and
 - (3) the acoustic emission measurements shall be performed on four (4) of the wind turbine generators: on one (1) of the wind turbine generators rated at 3.2 megawatts (MW) generating output capacity and one (1) of the wind turbine generators rated at 2.772 megawatts (MW) generating output capacity and one (1) of the wind turbine generators rated at 2.473 megawatts (MW) generating output capacity and one (1) of the wind turbine generators rated at 2.37 megawatts (MW) generating output capacity used in the Facility.
 - (4) if acoustic emission measurements cannot be performed on either of the two (2) wind turbine generators rated at 3.2 megawatts (MW) generating output capacity in Condition F1(3), the Company must provide two (2) emission test attempts with details of test results and a clear written explanation to the Director and District Manager as to why the emission test described in Condition F1(3) could not be met. The Company must obtain the written agreement of the Director, and follow any directions provided.
- F2. The Company shall submit to the Director and the District Manager 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, or such other later date as agreed to in writing by the Director.
- F3. In addition to the requirements described in Condition F2, the Acoustic Audit Report-Emission must include a summary of the measurement results corresponding to the Maximum Sound Power Levels (dBA) shown in Table B1 of Schedule B, supported by the Siemens letter dated July 15, 2015, contained in the Appendix E of the Acoustic Assessment Report. The purpose of the summary is to confirm the noise specifications of the wind turbine generators with specifications included in the Application. The following items must be included in the summary:
- (1) sound power levels (overall levels and frequency spectra in octave bands for each wind speed) of the wind turbine generators;
 - (2) tonal audibility values (for each wind speed) of the wind turbine generators;
 - (3) a statement that the measured overall A-weighted sound power levels of wind turbine generators, do not exceed the values of the Maximum Sound Power Level (dBA) shown in Table B1 of Schedule B of the Approval; and
 - (4) a statement that the wind turbine generators tonal audibility values, as per Condition F3(2), comply with the maximum tonal audibility value noted in the Acoustic Assessment Report.
- F4. If results from the Acoustic Audit Report-Emission described in condition F3 find that any of the wind turbine generators sound power levels and/or the tonal audibility values exceed the values specified within Schedule B of the Approval and/or the Acoustic Assessment Report, the Company shall:

- (1) provide within the Acoustic Audit Report-Emission a detailed description of the operational mitigation measures which shall be implemented (no later than nine (9) months after the commencement of the operation of the Facility, or such other date as agreed to in writing by the Director) at all wind turbine generators at the Facility to ensure compliance with the applicable criteria; and
- (2) carry out an additional Acoustic Audit - Emission of the acoustic emissions produced by the operation of the wind turbine generators in accordance with the requirements described in Conditions F1 to F3, and submit the Acoustic Audit Report-Emission to the Director and the District Manager no later than twelve (12) months after the commencement of the operation of the Facility, or such other date as agreed to in writing by the Director.

G – EROSION AND SEDIMENT CONTROL

- G1. The Company shall provide the District Manager and the Director with an erosion and sediment control plan, thirty days prior to the commencement of any construction or installation activities of the Facility.
- G2. The Company shall not commence construction or installation of the Facility until the erosion and sediment control plan has been approved in writing by the District Manager.

H – STORMWATER MANAGEMENT

- H1. The Company shall provide the District Manager and the Director with a stormwater management plan for the operations and maintenance building thirty days prior to the commencement of any construction or installation activities of the operations and maintenance building.
- H2. The Company shall not commence construction or installation of the operations and maintenance building until the stormwater management plan for the operations and maintenance building has been approved in writing by the District Manager.

I – WATER TAKING

- I1. For foundation dewatering, if the amount of discharge exceeds 50,000 litres per day:
 - (1) the inlet pump head shall be surrounded with clear stone and filter fabric;
 - (2) the discharge must be sampled each day that water is discharged and analyzed for total suspended solids (TSS). In the event that sampling results show that TSS in the discharge water exceeds 25 mg/L, the Company shall implement appropriate measures (settling tank or geosock or similar device) to mitigate these impacts; and
 - (3) the Company shall regulate the discharge at such rate that there is no flooding in the receiving water body or dissipate the discharge so that no soil erosion is caused that impacts the receiving waterbody.

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

J - SEWAGE WORKS OF THE TRANSFORMER SUBSTATION SPILL CONTAINMENT FACILITY

- J1. 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 300 mm layer of crushed stone (19 mm to 38 mm 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 50 mm 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 300 mm layer of crushed stoned (19 mm to 38 mm 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) 50 mm 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 Condition J4; and
- (4) the Company shall have a qualified person on-site during construction to ensure that the system is installed in accordance with the approved design and specifications.

J2. The Company shall:

- (1) within six (6) months after the completion of the construction of the transformer substation spill containment facility, provide to the District Manager an engineering report and as-built design drawings of the sewage works for the spill containment facility and any stormwater management works required for it, signed and stamped by an independent Professional Engineer licensed in Ontario and competent in electrical and environmental engineering. The engineering report shall include 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.
- (2) as a minimum, the Company shall check the oil detection systems on a monthly basis and create a written record of the inspections;
 - (3) 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;
 - (4) immediately identify and clean-up all losses of oil from the transformer;
 - (5) upon identification of oil in the spill containment facility, take immediate action to prevent the further occurrence of such loss;
 - (6) 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.
 - (7) in the event of finding water accumulation in the PVC pipes at the time of inspection, as per Condition J4, 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.
 - (8) 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.

J3. 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.

J4. 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 Parameters	Measurement Frequency and Sample Points	Sample Type
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 J3, the Company shall:
 - (a) increase the frequency of sampling to once per month, for each month that effluent discharge occurs, and
 - (b) provide the District Manager, on a monthly 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 J4, 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.

J5. The Company shall comply with the following methods and protocols for any sampling, analysis and recording undertaken in accordance with Condition J4:

- (1) Ministry of the Environment and Climate Change 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.

K - NATURAL HERITAGE AND PRE AND POST CONSTRUCTION MONITORING

GENERAL

- K1. The Company shall implement the Environmental Effects Monitoring Plan for the Belle River Wind Project, titled Belle River Wind Project Bird and Bat Environmental Effects Monitoring Plan, dated August 2015, and the commitments made in the following reports and included in the Application, and which the Company submitted to the Ministry of Natural Resources and Forestry in order to comply with O. Reg. 359/09:
- Belle River Wind Project, Natural Heritage Records Review Report, dated May 2015 and prepared by Natural Resource Solutions Inc.
 - Belle River Wind Project, Natural Heritage Site Investigation Report, dated May 2015 and prepared by Natural Resource Solutions Inc.
 - Belle River Wind Project, Natural Heritage Evaluation of Significance Report, dated May 2015 and prepared by Natural Resource Solutions Inc.
 - Belle River Wind Project, Natural Heritage Environmental Impact Study Report, dated May 2015 and prepared by Natural Resource Solutions Inc.
 - Belle River Wind Project Bird and Bat Environmental Effects Monitoring Plan, dated August 2015 and prepared by Natural Resource Solutions Inc.
- K2. If the Company determines that it must deviate from the Environmental Effects Monitoring Plan or the Environmental Impact Study, described in Condition K1, the Company shall contact the Director, the District Manager and the Ministry of Natural Resources and Forestry, prior to making any changes to the Environmental Effects Monitoring Plan or the Environmental Impact Study, and follow any directions provided.

PRE-CONSTRUCTION MONITORING - SIGNIFICANT WILDLIFE HABITAT

- K3. The Company shall implement the pre-construction monitoring described in the Belle River Wind Project, Natural Heritage Environmental Impact Study Report described in Condition K1, including the following:
- (1) A baseline survey of Raptor Wintering Areas (RWA-001 and RWA-002);
 - (2) A baseline survey of Bat Maternity Colony (BMA-001);
 - (3) Amphibian Breeding Habitat (Woodland) surveys (AWO-002, AWO-003, AWO-004, AWO-006, AWO-007, AWO-008, AWO-009, AWO-011, AWO-012 and AWO-013);

- (4) Marsh Bird Breeding Habitat surveys (MBB-001 and MBB-002);
- (5) Open Country Bird Breeding Habitat surveys (OCB-001);
- (6) Baseline surveys for Bird Species of Conservation Concern (EWP-002, EWP-003, EWP-004, EWP-006, EWP-007, EWP-008, WTH-001 and WTH-002);
- (7) Baseline surveys for Plant Species of Conservation Concern (PMI-001, PMI-002, PAW-001, PAW-002, PAW-003, PAW-004, PAW-005, PAW-006, MSE-002, MSE-003, MSE-004, MSE-005, MSE-006, MSE-007, SFL-001, DTP-001, WHP-001, BBU-001, BBU-002, BBU-003, BBU-004, BBU-005, BBU-006, BBU-007, MPW-001, MPW-002, MPW-003, MPW-004, WLO-001, WLO-002, WLO-003, WLO-004, BGA-001, CPR-001, UCF-001, UCF-002, UCF-003, UCF-005, ICF-001, ICF-002, ICF-003, ICF-004, GIW-001, GIW-002, LTA-001, LTA-002, LTA-003, LTA-004, LTA-005, LTA-006, LTA-007, LTA-008, LTA-009, MIW-002, MIW-004, MIW-005, MIW-006, MIW-007 and MIW-008);
- (8) Baseline surveys for Butterfly Species of Conservation Concern (DIS-001, DIS-002, DIS-003, DIS-004, DUS-001, DUS-002, DUS-003, DUS-004, GSW-001, GSW-002, CSO-001, HHA-002, HHA-003, HHA-004, HHA-006, HHA-007, HHA-009, HHA-010, HSC-001 and SCL-001).

POST-CONSTRUCTION MONITORING - SIGNIFICANT WILDLIFE HABITAT

- K4. The Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan described in Condition K1, including the following:
 - (1) Disturbance monitoring for Plant Species of Conservation Concern (SHU-001 (SCC-C), SHU-002 (SCC-P), CPR-002 (SCC-T), UCF-004 (SCC-T), SHH-001 (SCC-P), SHH-002 (SCC-H), SHH-003 (SCC-K), SHH-004 (SCC-B), SHH-005 (SCC-G), MIW-003 (SCC-I), and PGH-001 (SCC-L)).
- K5. Based on the results of the pre-construction monitoring described in Condition K3, should any of the Wildlife Habitats described in Condition K3 be deemed significant, the Company shall implement the post-construction monitoring described in the Environmental Effects Monitoring Plan described in Condition K1, at the specific habitats that are found to be significant, including the following:
 - (1) One year of Raptor Wintering Area surveys (RWA-001 and RWA-002), and an additional two years if impacts are documented, as outlined in the Environmental Effects Monitoring Plan and Environmental Impact Study;
 - (2) Three years of Bat Maternity Colony surveys (BMA-001);
 - (3) Disturbance monitoring for Amphibian Breeding Habitat (Woodland) (AWO-002, AWO-003, AWO-004, AWO-006, AWO-007, AWO-008, AWO-009, AWO-011, AWO-012 and AWO-013);

- (4) Three years of disturbance monitoring for Marsh Bird Breeding Habitat (MBB-001 and MBB-002);
- (5) Three years of disturbance monitoring for Open Country Bird Breeding Habitat (OCB-001);
- (6) Three years of disturbance monitoring for Bird Species of Conservation Concern (EWP-002 (SCC-P), EWP-003 (SCC-N), EWP-004 (SCC-S), EWP-006 (SCC-A), EWP-007 (SCC-H), EWP-008 (SCC-K), WTH-001 (SCC-N) and WTH-002 (SCC-A));
- (7) Disturbance monitoring for Plant Species of Conservation Concern (PAW-001 (SCC-N), PAW-002 (SCC-I), PAW-003 (SCC-K), PAW-004 (SCC-L), PAW-005 (SCC-B), PAW-006 (SCC-E), MSE-002 (SCC-N), MSE-003 (SCC-I), MSE-004 (SCC-K), MSE-005 (SCC-L), MSE-006 (SCC-B), MSE-007 (SCC-E), BBU-001 (SCC-N), BBU-002 (SCC-I), BBU-003 (SCC-G), BBU-004 (SCC-K), BBU-005 (SCC-L), BBU-006 (SCC-B), BBU-007 (SCC-E), ICF-001 (SCC-G), ICF-002 (SCC-B), ICF-003 (SCC-E), ICF-004 (SCC-K), LTA-001 (SCC-P), LTA-002 (SCC-N), LTA-003 (SCC-I), LTA-004 (SCC-H), LTA-005 (SCC-K), LTA-006 (SCC-L), LTA-007 (SCC-A), LTA-008 (SCC-E), LTA-009 (SCC-D), PMI-001 (SCC-G), PMI-002 (SCC-T), SFL-001 (SCC-M), DTP-001 (SCC-B), WHP-001 (SCC-M), MPW-001 (SCC-P), MPW-002 (SCC-F), MPW-003 (SCC-C), MPW-004 (SCC-D), WLO-001 (SCC-P), WLO-002 (SCC-H), WLO-003 (SCC-C), WLO-004 (SCC-D), BGA-001 (SCC-M), GIW-001 (SCC-P), GIW-002 (SCC-M), CPR-001 (SCC-M), UCF-001 (SCC-G), UCF-002 (SCC-B), UCF-003 (SCC-E), UCF-005 (SCC-K), MIW-002 (SCC-P), MIW-004 (SCC-F), MIW-005 (SCC-K), MIW-006 (SCC-A), MIW-007 (SCC-E) and MIW-008 (SCC-D));
- (8) Disturbance monitoring for Butterfly Species of Conservation Concern (HHA-002 (SCC-P), HHA-003 (SCC-N), HHA-004 (SCC-S), HHA-006 (SCC-H), HHA-007 (SCC-K), HHA-009 (SCC-E), HHA-010 (SCC-D), GSW-001 (SCC-G), GSW-002 (SCC-M), DIS-001 (SCC-H), DIS-002 (SCC-K), DIS-003 (SCC-C), DIS-004 (SCC-D), DUS-001 (SCC-H), DUS-002 (SCC-K), DUS-003 (SCC-C), DUS-004 (SCC-D), CSO-001 (SCC-M), HSC-001 (SCC-M) and SCL-001 (SCC-M)).

POST-CONSTRUCTION MONITORING - BIRDS AND BATS

- K6. The Company shall implement the post-construction bird and bat mortality monitoring described in the Environmental Effects Monitoring Plan, described in Condition K1, at a minimum of 12 constructed turbines.

THRESHOLDS AND MITIGATION

- K7. The Company shall contact the Director, the District Manager and the Ministry of Natural Resources and Forestry if any of the following bird and bat mortality thresholds, as stated in the Environmental Effects Monitoring Plan for the Belle River Wind Project described in Condition K1, exceeds:

- (1) 10 bats per turbine per year;

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

K8. If the bat mortality threshold described in Condition K7(1) is exceeded, the Company shall:

- (1) implement operational mitigation measures consistent with those described in the Ministry of Natural Resources and Forestry 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 the following:
 - (a) adjust 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 wind turbines for the operating life of the Facility; and
 - (b) implement an additional three (3) years of effectiveness monitoring.

K9. If the bat mortality threshold described in Condition K7(1) is exceeded after operational mitigation is implemented in accordance with Condition K8, the Company shall prepare and implement a contingency plan, in consultation with the Director, District Manager and the Ministry of Natural Resources and Forestry, to address mitigation actions which shall include additional mitigation and scoped monitoring requirements.

K10. If any of the bird mortality thresholds described in Conditions K7(2), K7(3), or K7(4) are exceeded for turbines located within 120 m of bird significant wildlife habitat, or if disturbance effects are realized at bird significant wildlife habitat within 120 m of turbine(s) while monitoring is being implemented in accordance with Condition K6, the Company shall implement immediate mitigation actions as described in the Environmental Impact Study and Environmental Effects Monitoring Plan described in Condition K1, and an additional three (3) years of effectiveness monitoring.

K11. If any of the bird mortality thresholds described in Conditions K7(2), K7(3), or K7(4) are exceeded for turbines located outside 120 m 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, the Director, the District Manager, and the Ministry of Natural Resources and Forestry, for the first three (3) years following the implementation of mitigation.

- K12. If either of the bird mortality thresholds described in Conditions K7(5) or K7(6) are 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, the Director, the District Manager and the Ministry of Natural Resources and Forestry.
- K13. If any of the bird mortality thresholds described in Conditions K7(2), K7(3), or K7(4) are exceeded while monitoring is being implemented in accordance with Conditions K10 or K11, or if either of the bird mortality thresholds described in Conditions K7(5) or K7(6) are exceeded after mitigation is implemented in accordance with Condition K12, the Company shall contact the Director, the District Manager and the Ministry of Natural Resources and Forestry 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, the Director, the District Manager and the Ministry of Natural Resources and Forestry.

REPORTING AND REVIEW OF RESULTS

- K14. The Company shall report, in writing, the results of the post-construction disturbance monitoring described in Conditions K4 and K5, to the Director, the District Manager and the Ministry of Natural Resources and Forestry 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.
- K15. The Company shall report, in writing, bird and bat mortality levels to the Director, the District Manager and the Ministry of Natural Resources and Forestry 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 K7(5) or K7(6) are exceeded, the Company shall report the mortality event to the Director, the District Manager and the Ministry of Natural Resources and Forestry 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 and Forestry within 24 hours of observation or the next business day;
- (3) if the bat mortality threshold described in Condition K7(1) is exceeded, the Company shall report mortality levels to the Director, the District Manager and the Ministry of Natural Resources and Forestry for the additional three (3) years of monitoring described in Condition K8, on an annual basis and within three (3) months of the conclusion of the October mortality monitoring for each year;
- (4) if any of the bird mortality thresholds described in Conditions K7(2), K7(3), or K7(4) are exceeded for turbines located within 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Director, the District Manager and the Ministry of Natural Resources and Forestry for the additional three (3) years of effectiveness monitoring described in Condition K10, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year;
- (5) if any of the bird mortality thresholds described in Conditions K7(2), K7(3), or K7(4) are exceeded for turbines located outside 120 m of bird significant wildlife habitat, the Company shall report mortality levels to the Director, the District Manager and the Ministry of Natural Resources and Forestry for the additional two (2) years of cause and effects monitoring described in Condition K11, 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 K11, the Company shall report mortality levels to the Director, the District Manager and the Ministry of Natural Resources and Forestry for the three (3) years of subsequent effectiveness monitoring described in Condition K11, on an annual basis and within three (3) months of the conclusion of the November mortality monitoring for each year.

K16. The Company shall publish the following documents on the Company's website;

- (1) any modifications to the Environmental Effects Monitoring Plan as described in Condition K2 within ten (10) days of submitting the final plan to the Director, the District Manager and the Ministry of Natural Resources and Forestry;
- (2) the results of the post-construction disturbance monitoring as described in Condition K14 within ten (10) days of submitting the final report(s) to the Director, the District Manager and the Ministry of Natural Resources and Forestry; and
- (3) annual bird and bat mortality monitoring as described in Condition K15 with the exception of subsection K15(2), within ten (10) days of submitting the final report(s) to the Director, the District Manager and the Ministry of Natural Resources and Forestry.

L – ENDANGERED SPECIES ACT REQUIREMENTS

- L1. The Company shall ensure that activities requiring authorization under the *Endangered Species Act, 2007* will not commence until necessary authorizations are in place.

M - MUNICIPAL CONSULTATION

- M1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the Town of Lakeshore and County of Essex.
- M2. Within three (3) months of having provided the Traffic Management Plan to the Town of Lakeshore and County of Essex, the Company shall make reasonable efforts to enter into a Road Users Agreement with the Town of Lakeshore and County of Essex.
- M3. If a Road Users Agreement has not been signed with the Town of Lakeshore and County of Essex within three (3) months of having provided the Traffic Management Plan to the Town of Lakeshore and County of Essex, the Company shall provide a written explanation to the Director as to why this has not occurred.
- M4. The Company shall make reasonable efforts to have ongoing discussions with the Town of Lakeshore and County of Essex, and make reasonable efforts to ensure that all commitments made to the Town of Lakeshore and County of Essex are met.

N - ARCHAEOLOGICAL RESOURCES

- N1. 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.
- N2. 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.

O - COMMUNITY LIAISON COMMITTEE

- O1. 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) kilometre radius of the Facility that may have an interest in the Facility to participate on the Community Liaison Committee.
- O2. 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.
- O3. The Community Liaison Committee shall consist of at least one Company representative who shall attend all meetings.
- O4. 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.
- O5. The Community Liaison Committee shall be deemed to be established on the day the Director is provided with written notice from the Company that Community Liaison Committee members have been chosen and a date for a first Community Liaison Committee meeting has been set.
- O6. 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.

- O7. 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.
- O8. The Company shall ensure that all Community Liaison Committee meetings are open to the general public.
- O9. 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.
- O10. 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.

P – ABORIGINAL CONSULTATION

- P1. 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.
- P2. 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.
- P3. 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.

- P4. The Company shall invite members of Aboriginal communities to participate in further archaeological fieldwork.
- P5. 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.

Q - AERONAUTICAL SYSTEMS

- Q1. The Company shall not erect T200, T201, T202, T204, T205, T206, T210, T211, T212, T213, T214, T215 and T219 until such time as the Company provides written confirmation to the Director and District Manager from NAV Canada that NAV Canada no longer objects to the location of these wind turbines.
- Q2. The Company shall not erect any wind turbines until such time as the Company provides written confirmation to the Director and District Manager from Transport Canada that Transport Canada accepts the wind turbine lighting proposal.

R - OPERATION AND MAINTENANCE

- R1. 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.
- R2. The Company shall;
- (1) update, as required, the manual described in Condition R1; and
 - (2) make the manual described in Condition R1 available for review by the Ministry upon request.

- R3. The Company shall ensure that the Facility is operated and maintained in accordance with the Approval and the manual described in Condition R1.

S - RECORD CREATION AND RETENTION

- S1. 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.
- S2. A record described under Condition S1(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.
- S3. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition S1, and make these records available for review by the Ministry upon request.

T - NOTIFICATION OF COMPLAINTS

- T1. The Company shall notify the District Manager of each complaint within two (2) business days of the receipt of the complaint.
- T2. The Company shall provide the District Manager with the written records created under Condition S2 within eight (8) business days of the receipt of the complaint.

U - CHANGE OF OWNERSHIP

- U1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:
- (1) the ownership of the Facility;
 - (2) the operator of the Facility;
 - (3) the address of the Company;
 - (4) the partners, where the Company is or at any time becomes a partnership and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B.17, as amended, shall be included in the notification; and
 - (5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

SCHEDULE A

Facility Description

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

- (a) a total of forty one (41) out of forty six (46) Siemens SWT-3.2-113 wind turbine generators
 - two (2) wind turbines rated at a maximum of 3.2 megawatts (MW), SWT-3.2-113;
 - six (6) wind turbines rated at a maximum of 2.772 megawatts (MW), SWT-2.772-113;
 - eighteen (18) wind turbines rated at a maximum of 2.473 megawatts (MW), SWT-2.473-113;
 - twenty (20) wind turbines rated at a maximum of 2.37 megawatts (MW), SWT-2.37-113;

and a maximum total name plate capacity of 100 megawatts (MW), designated as source ID Nos. T8, T11, T12, T14- T16, T19, T20, T26, T28- T30, T35-T38, T40, T44-T55, T57- T59, T62, T200-T202, T204-T206, T210-T215 and T219 each with a hub height of 99.5 metres above grade, and sited at the locations shown in Schedule B, in accordance with Condition C1(2)(b); and

- (b) associated ancillary equipment, systems and technologies including but not limited to one (1) transformer substation, on-site access roads, underground cabling, underground and overhead distribution and transmission lines,

all in accordance with the Application.

2. The location of any temporary laydown areas, interior access roads, entrances to the site, underground or overhead distribution or transmission lines, and other project components associated with the Facility, excluding the Equipment, may be altered or moved by up to 20 metres from that specified in the Application, provided that:

- (a) proposed modifications to the project are all within the already-assessed project location;
- (b) all setback prohibitions established under O. Reg. 359/09 are complied with;
- (c) the appropriate ministries have been consulted, including the Ministry of Natural Resources and Forestry and the Ministry of Tourism, Culture and Sport, as applicable;
- (d) any applicable revised report in respect of the proposed modifications, as well as a modifications document prepared in accordance with Chapter 10 of the Ministry of the Environment and Climate Change publication "Technical Guide to Renewable Energy Approvals", 2013, as amended, is prepared and submitted to the Director;

- (e) no modifications to the project will occur until such time as the Director provides written approval of the proposed modifications in the form of a letter.
- 3. The Company shall follow any and all directions provided by the Director in respect of project adjustments proposed pursuant to Item 2 of Schedule A.

SCHEDULE B
Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment below in UTM, Z17-NAD83 projection
Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators

Source ID	Maximum sound power level (dBA)	Easting (m)	Northing (m)	Source description
T8	102.0	360,066	4,680,128	Siemens SWT-2.473-113
T11	102.0	359,600	4,679,739	Siemens SWT-2.473-113
T12	102.0	360,252	4,678,849	Siemens SWT-2.473-113
T14	101.0	359,509	4,677,870	Siemens SWT-2.37-113
T15	102.0	360,191	4,677,673	Siemens SWT-2.473-113
T16	101.0	361,669	4,679,095	Siemens SWT-2.37-113
T19	101.0	361,579	4,679,854	Siemens SWT-2.37-113
T20	101.0	361,755	4,680,465	Siemens SWT-2.37-113
T26	101.0	363,159	4,679,890	Siemens SWT-2.37-113
T28	102.0	364,545	4,680,776	Siemens SWT-2.473-113
T29	101.0	364,478	4,679,877	Siemens SWT-2.37-113
T30	101.0	362,997	4,680,677	Siemens SWT-2.37-113
T35	101.0	364,337	4,677,175	Siemens SWT-2.37-113
T36	102.0	365,712	4,677,470	Siemens SWT-2.473-113
T37	102.0	365,729	4,677,096	Siemens SWT-2.473-113
T38	101.0	365,695	4,677,986	Siemens SWT-2.37-113
T40	101.0	365,866	4,679,546	Siemens SWT-2.37-113
T44	102.0	367,070	4,679,766	Siemens SWT-2.473-113
T45	101.0	367,036	4,679,190	Siemens SWT-2.37-113
T46	101.0	367,031	4,678,608	Siemens SWT-2.37-113
T47	101.0	367,180	4,678,250	Siemens SWT-2.37-113
T48	101.0	368,848	4,678,590	Siemens SWT-2.37-113
T49	101.0	368,803	4,679,032	Siemens SWT-2.37-113
T50	101.0	360,346	4,679,951	Siemens SWT-2.37-113

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

Source ID	Maximum sound power level (dBA)	Easting (m)	Northing (m)	Source description
T51	104.0	361,641	4,680,753	Siemens SWT-2.772-113
T52	106.0	370,341	4,680,174	Siemens SWT-3.2-113
T53	104.0	363,514	4,679,229	Siemens SWT-2.772-113
T54	102.0	364,191	4,677,481	Siemens SWT-2.473-113
T55	102.0	367,296	4,680,399	Siemens SWT-2.473-113
T57	101.0	370,544	4,678,825	Siemens SWT-2.37-113
T58	101.0	369,664	4,678,864	Siemens SWT-2.37-113
T59	101.0	369,105	4,678,887	Siemens SWT-2.37-113
T62	101.0	360,209	4,679,506	Siemens SWT-2.37-113
T200	104.0	357,471	4,680,867	Siemens SWT-2.772-113
T201	102.0	357,368	4,680,164	Siemens SWT-2.473-113
T202	104.0	354,650	4,680,291	Siemens SWT-2.772-113
T204	104.0	357,478	4,681,285	Siemens SWT-2.772-113
T205	102.0	356,095	4,680,131	Siemens SWT-2.473-113
T206	102.0	357,677	4,677,992	Siemens SWT-2.473-113
T210	102.0	354,293	4,680,010	Siemens SWT-2.473-113
T211	102.0	354,694	4,679,720	Siemens SWT-2.473-113
T212	102.0	354,597	4,679,373	Siemens SWT-2.473-113
T213	102.0	354,113	4,679,490	Siemens SWT-2.473-113
T214	104.0	354,370	4,679,190	Siemens SWT-2.772-113
T215	106.0	355,891	4,678,494	Siemens SWT-3.2-113
T219	102.0	357,352	4,677,811	Siemens SWT-2.473-113
BR Transf	110.6	364,208	4,678,691	Transformer

Note: The Maximum Sound Power Level of Source ID "Sub" includes the applicable 5 dB tonal penalty described in the Noise Guidelines for Wind Farms.

Table B2: Maximum Sound Power Spectrum (dB) of Transformer Substation-including 5 dB tonal penalty

Sub	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB)	113.2	115.2	110.2	110.2	104.2	99.2	94.2	87.2

SCHEDULE C

Noise Control Measures

Acoustic Barrier

One (1) four sided, 82 metres long, 7 metres high acoustic barrier, positioned as per Table 4-4 and Figure 4-1 of the Acoustic Assessment Report. The acoustic barrier shall be continuous without holes, gaps and other penetrations, and having a surface mass density of at least 20 kilograms per square metres.

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

1. Conditions 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. Condition C1 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Equipment and to ensure that the noise emissions from the Equipment will be in compliance with applicable limits set in the Noise Guidelines for Wind Farms.
7. Conditions C2, C3, 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. Specifically, Condition F is also included to verify whether the results of the acoustic emission measurements for wind turbines comply with the Maximum Sound Power Levels (dBA) shown in Table B1 of Schedule B of the Approval.
9. Conditions G, H, I, K, L, M and Q 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 J1 is included to ensure that the sewage works of the transformer spill containment facility are designed to have adequate capacity to provide spill control. This condition is also included to enable compliance with this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person, property or the environment is minimized and/or prevented.

11. Condition J2 is included to ensure that the sewage works of the transformer spill containment facility will be operated and maintained in accordance with the information submitted by the Company, and to adequately manage and clean-up any oil spill from the transformer.
12. Condition J3 is included to establish non-enforceable effluent quality objectives which the Company is required to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
13. Conditions J4 and J5 are included to require the Company to demonstrate that the performance of the sewage works of the transformer spill containment facility is at a level consistent with the design and effluent objectives specified in the Approval and is not causing any impairment to the environment.
14. Condition N is included to protect archaeological resources that may be found at the project location.
15. Condition O is included to ensure continued communication between the Company and the local residents.
16. Condition P is included to ensure continued communication between the Company and interested Aboriginal communities.
17. Condition R 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.
18. Condition S 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.
19. Condition T 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.
20. Condition U 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 and Climate
Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 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 13th day of January, 2016



Mohsen Keyvani, P.Eng.
Director
Section 47.5, *Environmental Protection Act*

SR/

- c: Area Manager, MOECC Windsor
c: District Manager, MOECC Sarnia
Brian Edwards, Samsung Renewable Energy Inc.