

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c. 15, Sch. B, as amended;

AND IN THE MATTER OF an Application by K2 Wind
Ontario, LP for an order under section 92 and subsection
96(2) of the *Ontario Energy Board Act, 1998*, granting leave
to construct an electricity transmission line and related
transmission facilities.

**RESPONSES TO INTERROGATORIES OF
THE RESIDENTS GROUP
to
K2 WIND ONTARIO LIMITED PARTNERSHIP**

MARCH 14, 2013

RESIDENTS GROUP INTERROGATORIES

Interrogatory 1: Proposed Underground 230 KV Transmission Line

Reference:

- a) Exh. E/ Tab 1/ Sch.1/ pg 1 & 2/ Facilities Overview
- b) Exh. E/ Tab 2/ Sch.2/ pg 2 & 3/ major Transmission Equipment Ratings
- c) Exh. E/ Tab 6/ Sch .1/ Table of Applicable Codes, Standards and Regulations
- d) Exh. D/ Tab 2/ Sch. 1/ Location of Proposed Facilities

Questions:

1. Provide any additional and complete construction/engineering details of the proposed 230 KV line including: specifications for cables, protection, depth of construction, and materials used surrounding the cables. Provide the source for the proposed cables. Provide the details of the proposed contractors who will construct the underground line, including their background and specific experience in installing a 230 KV underground line. Indicate if their related experience pertains to an urban or rural environment.

Provide the names of any engineers who were involved in the design of the proposed 230 KV transmission line and provide their full C.V.s with details of their experience in working on and designing 230 KV underground lines. Indicate if their related experience pertains to an urban or rural environment.

Provide the minutes or notes from any discussions or meetings held with design engineers regarding the proposed underground transmission line.

Responses:

1. Technical information from the preliminary design of the transmission line was included as part of the Application as Exhibit E. Cable specifications were included at Exhibit E-2-2. Information regarding protection, depth of construction and materials used surrounding the cables is included at Exhibit H-1-1, pp. 15-16 and in the responses to Board Staff Interrogatory 9(ii).

The following additional information is provided. Cables will be sourced from a reputable supplier and will be Canadian Standards Association (“CSA”) compliant. The contractor selected to do the work will be required to have significant experience in underground transmission work and an excellent quality and safety record. Specific rural experience will not form part of the criteria for

contractor selection, necessarily, because the same principles and standards apply to both rural and urban locations.

All engineers who have been involved in the preliminary design of the K2 Transmission Line are licensed professional engineers under Ontario's *Professional Engineers Act*. The principles and standards that pertain to the design of direct buried transmission lines are the same for lines in both rural and urban environments. It is the responsibility of any design engineer to take into account the environment in which their design will be employed.

All information resulting from consultations between K2 Wind and professional engineers are reflected in the Application and in responses to interrogatories.

Questions:

2. Provide a schematic cross-section of each of the proposed river and road crossings of the underground 230 KV line. Indicate the exact depth of each crossing.

Responses:

2. The K2 Transmission Line will include three crossings in total: two of the Glens Hill Road allowance and one of the Lanesville Line Road allowance and an adjacent waterway, at the same location (i.e., the line will cross under both the road and the waterway). Please see Exhibit F-4-1 of the Application for a map showing the route of the K2 Transmission Line and the proposed crossings.

The designed depth for all crossings will be in accordance with K2 Wind's commitments under the REA. The final detailed cross-section design for road crossings will be made available for review and comment by the ACW Township Public Works Department, prior to construction.

Questions:

3. What is the available ground fault current on the 230 KV circuit? What are the impedances for the K2 transformers connected to this circuit?

Responses:

3. The Project's ground fault current was studied as part of the IESO SIA Report 2nd Addendum, included at Exhibit G-7-1 of the Application.

Transformer impedances can be found in the IESO SIA Report 2nd Addendum as well as the IESO SIA Amendment Application, included at Exhibits G-7-1 and G-5-1, respectively, of the Application.

Questions:

4. Provide copies of all applicable Ontario codes, standards and regulations specifically relating to an underground 230 KV transmission line. Indicate who will be responsible at the ESA for reviewing this high voltage installation.

Responses:

4. A Table of Applicable Codes, Standards and Regulations was provided as Exhibit E-6-1 of the Application. These materials have copyright protections and while copying and re-transmittal is prohibited, they may be obtained on-line and, in some cases, purchased from various third-party vendors.

If required, *per* Rule 2-010 of the Ontario Electrical Safety Code, a review of electrical installation plans would be conducted by the Electrical Safety Authority's High Voltage Plan Review group.

Questions:

5. Provide details of any fail safe/safety/backup system in the event of a failure in the transmission line.

Responses:

5. In accordance with Northeast Power Coordinating Council ("NPCC") requirements, the K2 Transmission Line will be designed with redundant fault detection technology as *per* an engineered electrical protection scheme that is designed to automatically take the line out of service immediately upon the detection of a fault.

Questions:

6. Provide details of any measures that will be taken to prevent electrification of the surrounding lands in the event of a failure in the transmission line.

In the event of voltage issues/complaints associated with the K2 Wind transmission system, provide details of procedures for resolving these issues. Indicate which staff members will be responsible for resolving these issues. If outside contractors will be required, indicate which contractors will be retained.

Responses:

6. The proposed K2 Transmission Line will contain a shield (grounding) and insulation along its entire length, and therefore is not expected to cause any electrification of the surrounding lands. K2 Wind is confident that the proposed transmission line, as designed, will not cause the types of issues referenced in this question. K2 Wind will ensure the Project is built and maintained consistent with the requirements prescribed by all applicable codes and standards. Local residents with any complaints about the Proposed Facilities will be able to follow the standard procedure for complaint resolution. K2 Wind will work with Hydro One, the local distributor, to resolve any issues, as necessary.

K2 Wind plans to install the K2 Transmission Line and almost all of the collector lines underground. Due to underground installation, the risk of the Proposed Facilities causing any stray voltage issues on the local distribution system is extremely low since the K2 Transmission Line will be physically separated from the local distribution system by a considerable distance.

Questions:

7. Provide a copy of the K2 Wind emergency response plan for dealing with a failure in the transmission line. Provide details of the OPP and other emergency responders protocols for responding to an emergency situation involving the proposed transmission line, substation and transformer station.

Provide details of the procedure for contacting residents and neighbouring landowners in the event of an emergency situation or failure in the underground cables/transformer station and substation. Indicate who will be responsible for initiating this emergency contact. Provide information on the acceptable response time for such emergency contact.

Responses:

7. K2 Wind will engage with local emergency responders to develop an emergency response plan related to the Proposed Facilities, as part of the emergency response plan for the larger Project. The EPC contractor, in collaboration with K2 Wind, will be responsible for developing and implementing an emergency response plan during the construction phase of the Project. Notifications to emergency responders, local municipalities or the public in case of an emergency will depend on the type of emergency. In the protocols it develops and implements, K2 Wind will specifically identify the types of events during which notifications will be provided, and to whom they will be provided.

Questions:

8. Include information about the safe limits of approach to underground 230 KV transmission lines as required by the Ministry of Labour.

Responses:

8. Ontario's *Occupational Health and Safety Act* specifies safe 'Limits of Approach' for overhead power lines under Ontario Regulation 213/91: Construction Projects), section 188(2).¹ This regulation does not specify limits for underground utilities. The underground cables to be installed contain insulation and shielding such that the voltage potential on the outside of the protective sheath is zero. This differs from the standard design of bare, uninsulated overhead wires for which the above mentioned regulation is designed.

¹ See: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_910213_e.htm#BK34.

Questions:

9. Provide information on the qualifications needed by anyone working in the vicinity of the underground 230 KV transmission line. How does this impact farmers and landowners working in the fields adjacent to the line?

Will K2 Wind staff be available and trained to provide underground locates? Alternatively, does K2 Wind intend to subscribe to "One Call"?

Responses:

9. K2 Wind plans to design the transmission line in such a way that there will be no need to vary the normal procedures needed to work safely in the lands adjacent to the road allowance where the transmission line is located.

K2 Wind will become a member of Ontario's One Call program, which provides free locates to any homeowner. Ontario One Call recommends that any person planning below ground work use their services regardless of where the work is planned. Although K2 Wind staff and contractors will have knowledge of the location of Project infrastructure, they cannot guarantee the location of all underground facilities that are not owned and operated by K2 Wind. Accordingly, it is recommended that the procedures recommended by Ontario One Call are followed in all cases.

More information on the Ontario One Call program can be found at <http://on1call.com/index.php/homeowners/>.

Questions:

10. If municipal staff are working on the roadway, whether grading, ploughing, or doing ditch work, what qualifications are required under limits of approach? If municipal staff are not qualified to work in the vicinity, will K2 Wind provide qualified staff to perform any necessary work? Will K2 Wind shut the line off if unforeseen work is required? How much advance notice will be needed? How would staff working in the vicinity be informed that the line is not live?

Responses:

10. K2 Wind plans to design the transmission line in such a way that no specialized training or qualifications will be required for municipal staff or anyone else occupying or working above ground in the immediate vicinity of the line. In the event that ACW Township plans to undertake below-ground work in the road allowance, as with any below ground work, this would require the use of the services of Ontario One Call. In the event that Ontario One Call identifies K2 Wind infrastructure, K2 Wind would need to be contacted to assess any special requirements related to the work.

Questions:

11. Provide detailed information on how the municipal drains will be handled during construction of the proposed underground 230 KV line.

Responses:

11. Any ACW Township drains (culverts) along the K2 Transmission Line route will be identified and located in advance of construction, during the detailed design process. Where feasible, cables will be installed so as not to affect culverts during construction. If there are temporary disruptions to drainage patterns during construction, all required mitigation methods will be implemented according to the requirements of the REA. K2 Wind will coordinate closely with the ACW Township Public Works Department to ensure that the department is satisfied with all work affecting ACW Township infrastructure. K2 Wind will respond quickly to any issues raised by the ACW Township or area residents in this regard.

Questions:

12. Provide detailed plans for procedures on dealing with ongoing municipal drainage work that may be needed on the municipal drains crossing the underground 230 KV transmission line.

Responses:

12. K2 Wind intends to design and construct the K2 Transmission Line in such a way that no specialized plans will be required for the type of work referenced in the question. Please refer to the responses provided to Questions 10 and 11 above.

Questions:

13. Provide information on proposed public access/safety on the roads during construction. What alternate access routes will be provided?

Responses:

13. As with any construction activity, K2 Wind would implement flagging and other appropriate safety measures for any equipment using the road during construction. No roads will be physically disturbed during construction of the Proposed Facilities; accordingly, it is not anticipated that alternative access routes will be required.

Questions:

14. Provide examples of other locations where this size of transmission line has been buried in Ontario and the specifications used in these circumstances. Provide the details of the locations, if any, in terms of whether or not these are located on public or private lands and in urban or rural environments.

Responses:

14. The following two projects are examples of buried high voltage transmission lines in Ontario:

Halton Hills Generating Station: Includes a 230 kV transmission line comprising approximately 2 km of direct buried 230 kV cables, as well as a crossing under Highway 401. The line is installed on both private and public lands in a rural area.

Wolfe Island Wind Project: Includes a 230 kV transmission line that comprises approximately 4.5 km of underground cable and 7.6 km of submarine cable on both public and private land, through both rural and urban areas.

Questions:

15. How far will the underground 230 KV transmission line be located from private fence lines? Provide information on any existing fence lines intersecting the route of the proposed underground 230 KV transmission line and indicate how these will be dealt with during and after construction of the line.

Responses:

15. The proposed K2 Transmission Line will be installed predominantly on private lands, with the exception of approximately 950 m of cable which will be installed on the south side of Glens Hill Road, within an approximately 20 m-wide road allowance. Where the K2 Transmission Line is located within road allowance, it will be located 3 to 3.5 m from residential property lines along the road allowance. Since the K2 Transmission Line will be constructed within the road allowance, it is not expected to intersect with private fence lines (with the exception of participating landowners). Please see the map at Exhibit F-4-1 of the Application.

Where the K2 Transmission Line is located within the road allowance, K2 Wind will make reasonable efforts to install the line: (i) between the roadside drainage ditch and the boundary of the road allowance; and (ii) at depths that will avoid conflicts with other existing infrastructure.

Finally, Section 5.7 of the Road Use Agreement, authorized by ACW Township Council on March 5, 2013, provides as follows:

In the event that physical features of the road allowances or other obstacles or circumstances frustrate the ability of K2 Wind to complete the Installation Work in substantial compliance with the Plans approved by ACW, or render substantial compliance with the Plans commercially unreasonable, K2 Wind agrees to revise the relevant Plans and submit such revised Plans for review by ACW.

Questions:

16. The schematic diagrams provided do not indicate exactly where on the road allowance the proposed underground 230 KV line would be located. Residents of ACW have indicated to our group that employees associated with the K2 Wind project, have advised ACW residents that the line will likely be buried under the road bed. Confirm whether or not this is the case. Provide mapping showing the exact location of the proposed line and the exact location (co-ordinates) of the points where the line is located on the public road allowance (Segment 5 – 1.07 km). If the line is being located under the traveled portion of the road, provide details on reconstruction of the road bed. If the line is being located elsewhere in the road allowance (i.e. in the roadside ditches), provide information regarding the protection to be provided from water damage/erosion.

Responses:

16. The K2 Wind Project team member in question (Sandy Fleming) stated that running the K2 Transmission Line under the road bed along the length of the road would be considered as one option. However, after consultation with ACW Township and in order to avoid disturbance to traffic during construction and reconstruction of the road afterward, it was determined that this option would not be pursued.

The K2 Transmission Line will be located beneath the travelled portion of the road allowance at the three locations where it crosses the road allowance (see the map included at Exhibit F-4-1 of the Application). This will occur in the approximate vicinity of Splice 1, Splice 2 and to the north of Splice 3.

Section 6.2 of the Road Use Agreement authorized by ACW Township Council states as follows:

Where practicable, if buried Electrical Infrastructure routes need to cross ACW roads, such crossings shall be constructed by boring underneath the roads instead of breaking open the surface of the roads.

This will be accomplished via directional drilling which will be included as part of final design in accordance with the K2 Wind EPC contract.

For the remaining portion of construction within the road allowance, K2 Wind has committed to make reasonable efforts to install the K2 Transmission Line: (i) between the roadside drainage ditch and the boundary of the road allowance; and (ii) at depths that will avoid conflicts with other existing infrastructure.

The K2 Transmission Line, itself, will be protected from water damage and erosion by means of an insulating jacket along its entire length.

Questions:

17. The mapping which has been provided for the proposed underground transmission line is broad and general in nature. Provide accurate and detailed maps showing the proposed transmission line and all ancillary lines. Indicate the location of all other existing utilities along the route of the proposed 230 KV underground line. Where the proposed line is located adjacent to existing above ground hydro electric transmission poles, indicate the distance from the existing poles to the underground line. Provide information regarding the impact of the proposed excavations on the stability of any existing poles.

Responses:

17. The proposed K2 Transmission Line will be located predominantly on private lands, with the exception of an approximately 950 m stretch, which will be located within the road allowance, on the south side of Glens Hill Road. Along this stretch of road, existing Hydro One utility poles are located on the north side of the road allowance. The K2 Transmission Line will be installed on the opposite (south) side of the 20 m right-of-way and will, accordingly, not interfere with the utility poles. A map detailing the route of the K2 Transmission Line was provided at Exhibit F-4-1 of the Application. Please also see the response to Ontario Energy Board Staff Interrogatory 6(ii). The location of ancillary lines is not relevant to this proceeding.

Questions:

18. Provide the co-ordinates for all splices in the proposed 230 KV line.

Responses:

18. As shown on the map of the K2 Transmission Line provided at Exhibit F-4-1 of the Application, the K2 Transmission Line will include five (5) splices. The locations shown on Exhibit F-4-1 of the Application are approximate and exact coordinates will be determined by the EPC Contractor, as part of detailed design and engineering for the Project.

Questions:

19. Provide details on plans for protecting splicing vaults with regard to water seepage. Where splicing vaults are located on road allowance, indicate if any portion of the vaults will be located above ground and provide details of any additional measures e.g. posts, berms, to be provided for protection from vehicular damage in the event of an accident. What protection will be in place for vaults on private property? If any portions of the vaults are located above ground, provide information on how these vaults will be marked for visibility under winter conditions.

Responses:

19. Current design calls for direct buried splices, not vaults. Splices will be located on private property and not within the road allowance.

Detailed plans and designs will be provided by the EPC Contractor, as part of final design and engineering.

Questions:

20. Provide specifics on the soil characteristics along the length of the proposed underground 230 KV line, with particular attention to conditions required to dissipate heat from the line. Indicate how frequently the soil along the length of the line was tested, who conducted the testing and provide all results and field notes from such testing.

Responses:

20. Soil thermal resistivity tests were conducted at two locations in proximity to the proposed route of the K2 Transmission Line. A summary of the soil resistivity test results is provided in the table below.

SUMMARY OF FIELD THERMAL RESISTIVITY TEST RESULTS

Sample ID	Location	Depth, m	Field Soil Description	Insitu * Temperature °C	Insitu* Moisture Content %	Thermal ** Resistivity (°C·m/W)	Thermal Conductivity W/(m·C)
TP 1, Sa 1	Belgrave Road	0.7 m	Topsoil	8.9	27.5	0.92	1.09
TP 1, Sa 2	Belgrave Road	1.0 m	Silty Clay Till	7.3	31.0	0.45	2.21
TP 1, Sa 3	Belgrave Road	1.3 m	Silty Clay Till	6.6	25.5	0.52	1.93
TP 2, Sa 1	Lanesville Line	0.7 m	Fine Sand	8.2	29.5	0.77	1.30
TP 2, Sa 2	Lanesville Line	1.0 m	Fine Sand	6.7	32.1	0.68	1.48
TP 2, Sa 3	Lanesville Line	1.3 m	Fine Sand	6.2	27.3	0.62	1.61
TP 3, Sa 1	Glens Hill Road	0.7 m	Silty Sand	8.2	11.8	0.53	1.90
TP 3, Sa 2	Glens Hill Road	1.0 m	Silty Clay Till	7.0	11.3	0.48	2.10
TP 3, Sa 3	Glens Hill Road	1.3 m	Silty Clay Till	6.2	14.1	0.52	1.92
TP 4, Sa 1	Tower Line	0.7 m	Silty Clay Till	7.3	18.9	0.63	1.59
TP 4, Sa 2	Tower Line	1.0 m	Silty Clay Till	6.3	16.1	0.66	1.52
TP 4, Sa 3	Tower Line	1.3 m	Silty Clay Till	6.0	14.5	0.55	1.80
TP 5, Sa 1	Belfast Road	0.7 m	Silty Clay Till	7.7	18.3	0.69	1.45
TP 5, Sa 2	Belfast Road	1.0 m	Silty Clay Till	6.8	14.1	0.59	1.70
TP 5, Sa 3	Belfast Road	1.3 m	Silty Clay Till	6.1	14.8	0.54	1.85
TP 6, Sa 1	Hawkins Road	0.7 m	Fine Sand	7.8	14.7	0.52	1.93
TP 6, Sa 2	Hawkins Road	1.0 m	Silty Clay Till	7.0	10.5	0.45	2.23
TP 6, Sa 3	Hawkins Road	1.3 m	Silty Clay Till	6.3	10.7	0.45	2.22
* - Field measurements							
** - Field measurements in accordance with ASTM D 5334							

Questions:

21. Provide the groundwater specifics along the length of the proposed underground 230 KV line. Include the locations of all test sites, all test results and all field notes in regard to such testing.

Responses:

21. Groundwater testing was not performed along the route of the proposed K2 Transmission Line because the line will be encased in a protective sheath. The site of the K2 Substation was tested. Two piezometers installed at the site in 2006 showed groundwater levels 0.5 and 7 metres below the ground surface, respectively.

Stormwater management plans for the K2 Transformer Station and the K2 Substation can be found in Appendix C of the Design and Operations Report included on the CD-ROM of public REA reports filed with these interrogatory responses. Please note that the groundwater information for the K2 Transformer Station was obtained from the Maitland Valley Conservation Authority (“**MVCA**”) and the recommendations in the stormwater management plan for the K2 Transformer Station were based on MVCA data and requirements.

Questions:

22. Outline the inspection/maintenance regime for maintaining the security and safety of the proposed underground 230 KV transmission line.

Provide specific details on the size, location and nature of any above-ground identification or markers which indicate the underground cable location.

Responses:

22. The underground cable, itself, requires no maintenance as it is designed to remain in place without any attention. The primary activity related to the cable will be regular checks to verify that above-ground markers are in place along the route and that line cover has not been disturbed. Termination structures at either end of the K2 Transmission Line will require regular maintenance in accordance with the manufacturers' requirements.

Above-ground markers will be installed above the cable at 20 m intervals and at either end of road crossings. These will comply with ESA requirements, which require that such markers be red; flexible; impact resistant; 1.2 m in height; and indicate line voltage and the Ontario One Call number. Please see Exhibit H-1-1, pp. 15-16 and the response to Board Staff Interrogatory 9(ii) for additional information.

Interrogatory 2: Project Overview

Reference:

- a) Exh. C/ Tab 1/ Sch.1/ pg 1/ Project Overview

Questions:

- 23. Provide the full and complete meteorological data on which wind energy production for K2 has been projected.

Responses:

- 23. K2 Wind does not understand the relevance of this information to the issues that are to be considered in this proceeding, as stipulated in Procedural Order 1. In any event, the information requested is proprietary and confidential.

Questions:

24. Please indicate whether K2 Wind or its affiliates has any connection to or has entertained any discussions with other proposed wind projects in the Township of Ashfield-Colborne-Wawanosh, including but not limited to EDP Resources.

Responses:

24. No. K2 Wind and its affiliates have not had any discussions in this regard.

Interrogatory 3: System Impact Assessment (SIA) & Customer Impact Assessment (CIA)

Reference:

- a) Exh. G/ Tab 1/ Sch.1
- b) Exh. G/ Tab 2, 3 & 4/ Schs. 1 - SIA Report, CIA Report & SIA Report Addendum
- c) Exh. G/ Tab 6/ Sch.1
- d) Exh. G/ Tab 7/ Sch. 1

Questions:

- 25. Provide a copy of K2 Wind's license to generate. If no license is available, indicate if and when K2 Wind plans to apply for such a license.

Responses:

- 25. K2 Wind will apply for a generation license, likely in the fourth quarter of 2014.

Questions:

26. The output from the proposed wind project will be connected to a 500 KV Transmission line operated by Hydro One Networks. Provide the description, rules and regulations in regards to the 1988 registered easement for this 500 KV Transmission line. What were the maximum parameters of the 500 KV Transmission line as per the 1988 easement? Will the K2 project's connection change the parameters of the 1988 easement?

What is the available ground fault current for the 500 KV Transmission line. Provide a copy of the parameters for ground faults for this line.

What is the size and capacity of the grounding grid at the transformer station and the substation? Is this sized to permit additional future generation?

Responses:

26. K2 Wind has no information regarding Hydro One's easement for its 500 kV transmission line. Any questions in this regard should be directed to Hydro One.

Ground fault currents were specified in the IESO SIA Report 2nd Addendum, Section 2, included at Exhibit G-7-1 of the Application.

Exact details of the grounding grids will be determined during final design by the EPC contractor, as per the applicable codes and standards. Minimum requirements will be in accordance with the OEB Transmission System Code, Section 8.4 – Grounding, as well as the Institute of Electrical and Electronics Engineers (“IEEE”) Standard 80. The grounding grid will be sized to accommodate the generation of K2 Wind, only, without regard to future expansion.

Questions:

27. Provide information of the anticipated price that will be paid to K2 Wind per KWH of generated electricity including projected cost of living increases over the lifespan of the project.

Responses:

27. K2 Wind's electricity price will escalate from a base of \$135/MWh in October 2009 at the Ontario Consumer Price Index ("**CPI**") until the Project reaches its Milestone Date for Commercial Operation, and thereafter will escalate at 20 percent of the Ontario CPI. An economic development adder may apply to the price depending on economic development results under the GEIA. The price will depend on the actual CPI.

Questions:

28. With regard to the proposed switchyard, indicate whether K2 Wind will be assuming the operational costs of this switchyard. Indicate who will be paying for any future upgrades to this switchyard.

Are any alterations or upgrades to the 500 KV Transmission line anticipated to allow connection of the proposed K2 Wind project? If so, what are the anticipated costs of such alterations or upgrades and is K2 Wind responsible for assuming these costs?

Responses:

28. K2 Wind will pay the operational costs of its substation up to the point of demarcation with the Hydro One Switching Station.

The SIA identified no improvements to the 500 kV transmission system outside the Hydro One switchyard.

Questions:

29. Indicate how many circuits, of a possible total number of circuits on the Bruce to Longwood Transmission corridor will this project be accessing and why this number is required.

Responses:

29. As described in the IESO's SIA Report 2nd Addendum (included at Exhibit G-7-1 in the Application), the Project will only be accessing circuit B563L on the Bruce to Longwood Transmission corridor. The Project only requires connection to a single circuit.

Questions:

30. Indicate how this might affect the IESO's ability to balance the phases on this particular transmission corridor.

Responses:

30. The effect of K2 Wind electricity being injected into only one of the two 500 kV circuits between Bruce and Longwood was studied by the IESO. The IESO did not identify an issue related to a possible unbalance. If the IESO had found an issue, it would have required changes to the connection of K2 Wind to the transmission grid. It did not.

Questions:

31. Have any upgrades been needed, are in the works or have been completed to the Bruce to Longwood corridor or any other substations or switchyards in anticipation of this and other projects and where have these costs been assessed? What are the costs of any upgrades?

Responses:

31. K2 Wind has no knowledge of any other upgrades in this corridor.

Questions:

32. Provide the minutes or notes from any meetings or discussions held with the IESO in regards to integration of the output of this application into the Ontario electrical grid.

Responses:

32. All of the relevant information regarding the connection of the Proposed Facilities to the IESO-controlled grid is reflected in the IESO SIA Reports that are included in Exhibits G-2-1, G-4-1 and G-7-1 of the Application.

Questions:

33. Provide the minutes or notes from any meetings or discussions held with Hydro One Networks in regards to the connection of the proposed project to the existing 500 KV transmission line.

Responses:

33. All of the relevant information regarding the connection of the Proposed Facilities to Hydro One's existing 500 kV transmission line is reflected in the CIA Reports that are included at Exhibits G-3-1 and G-6-1 of the Application.

Questions:

34. The Bruce to Longwood transmission line is the connection point from the Ontario electric grid to the Michigan electric grid making it an International Power Line (IPL). Has the National Energy Board (NEB) been advised of this new project consisting of a transmission line, substation and switchyard attaching to the Bruce to Longwood transmission line? Is the NEB involved in any way in the OEB hearing? Will K2 Wind be filing for a permit under NEB Act S.58.11 or an election certificate under NEB Act s.58.13? If neither of these permits is being sought, what is the reasoning behind not seeking the permits?

Responses:

34. K2 Wind is not aware of any involvement of the National Energy Board in this proceeding and does not intend to apply for any National Energy Board permits or certificates in respect of the Project. An international power line is defined in section 2 of the *National Energy Board Act* as “facilities constructed or operated for the purpose of transmitting electricity from or to a place in Canada to or from a place outside Canada”. The Proposed Facilities applied for only connect to the IESO grid, are wholly contained within the Province of Ontario and do not cross any international or any interprovincial boundaries.

Interrogatory 4: Community and Stakeholder Consultation

Reference:

- a) Exh. I/ Tab 1/ Sch.1
- b) Exh. I/ Tab 3/ Sch. 1

Questions:

35. Various ratepayers and residents of ACW and elsewhere in Ontario have expressed concerns related to the impact of the proposed project. Have residents provided written confirmation that K2 Wind's response to these questions has satisfied their concerns? If so, provide a copy of these confirmations and indicate whether or not the correspondents have a material stake in the proposed project.

Responses:

35. K2 Wind has made every effort to address the comments of local residents, municipalities and other stakeholders both in this proceeding and as part of prior consultation efforts. K2 Wind team members have been engaging with community residents and other stakeholders regarding the Project since early 2009. For the responses provided by K2 Wind in this proceeding, please see the response to Board Staff Interrogatory 9.