ONTARIO ENERGY BOARD

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

AND IN THE MATTER of an application by Summerhaven Wind LP for an order under section 92 and subsection 96(2) of the OEB Act granting leave to construct an electricity transmission line and related facilities.

APPLICANT RESPONSE TO HALDIMAND COUNTY HYDRO INC. INTERROGATORIES

Interrogatory 1

Preamble:

The evidence references both a 9 km transmission line and a 12 km transmission line. The IESO has noted "... the shortening of the 230 kV connection line from 12 km to 9 km". They also "strongly recommend that a common switching station be built for both projects instead of two separate stations".

Question:

(a) Confirm that SWLP intends to build the 9km transmission line rather than the originally proposed 12km transmission line.

(b) What change has resulted in the shorter transmission line being selected as the preferred option?

(c) How does the shorter route increase reliability or quality of service?

(d) Confirm that SWLP has rejected the "strong recommendation" of the IESO and will not have a switching station co-located with the Capital Power project, Port Dover and Nanticoke Wind ("PDNW").

(e) If (d) is confirmed, explain why the strong recommendation of the 1ESO was not followed.

(f) Did the rejection of the IESO recommendation contribute to shortening the line?

(g) Given the proximity of SWEC to the PDNW of the intervenor, Capital Power, has SWLP discussed with Capital Power or considered:

(i) the potential for additional pole lines in the same right-of-way; or

(ii) the potential for joint use of poles/tower?

If so, please provide a summary of the issues discussed and the outcome. Please provide any written communication in the regard.

Response:

(a) As identified in the leave to construct application, and in the letter provided by the IESO on December 7th, 2010, the Applicant intends to build a Transmission Line that is approximately 9km.

(b) The Transmission Line was shortened based on additional engineering work that allowed the Applicant to minimize the length of the Transmission Line while maintaining acceptable collector circuit lengths for the SWEC.

(c) The shorter Transmission Line should result in enhanced reliability relative to a longer line because there is inherently less opportunity for service interruption due to the forces of nature or incidental contact.

(d) The Applicant did not reject the IESO's recommendation to co-locate the switching station with Capital Power's Port Dover and Nanticoke Wind project. Please refer to Board Staff IRR 5(i).

(e) Please refer to HCHI IRR 1(d).

(f) The Applicant did not reject the IESO's recommendation. Please refer to HCHI IRR 1(b) and HCHI IRR 1(d).

(g) Despite the proximity of the SWEC to the Port Dover Nanticoke Wind Project, the two projects have minimal geographic overlap. The Applicant and Capital Power worked together to investigate and address mutual concerns about project design and other potential efficiencies/issues. The result of these discussions was that the two projects are physically separated. In response to the specific questions:

(i) The Applicant is not aware of any other circuit(s) that would benefit from the use of the current route of the Transmission Line, therefore has not discussed additional pole lines in that right of way.

(ii) As above, the Applicant is not aware of any other circuit that would benefit from the use of the route, therefore has not discussed the joint use of poles with another developer.

Interrogatory 2

Preamble:

HCHI is requesting information regarding the relationship between the proposed easement and the municipal right-of-way in order to better understand SWLP's proposal.

Question:

(a) Confirm the width of the easement sought as either 25 metre or 100 feet.

(b) What are the foot print dimensions of the proposed transmission pole?

(c) Given the road allowance is 66 feet, leaving about 22 feet (6.7 metres) between the edge of the roadway and the property line, including a ditch, does the easement extend beyond over the paved surface of the road?

(d) Does the swing arc extend over the paved surface of the road?

(e) Please provide a drawing showing the cross-section of the road, the location of the pole and the extent of the easement. Please indicate the location of the temporary 50 foot working easement in the drawing and details of the tree clearing.

(f) Has SWLP confirmed with the existing utilities utilizing the road allowance that the suggested location will not interfere with such utilities? If so, please provide such confirmation.

(g) Can the SWLP provide a plan view of the transmission line location where such occurs within or beside, and parallel to a municipal road right-of-way.

(h) Clearly showing distances to the edge of road and the property line.

(i) How does the temporary 50 foot working easement relate to the municipal right-of-way? Does it extend beyond the edge of pavement?

Response:

(a) The Transmission Line easement sought is 30 metres (99 ft).

(b) Except as described in the Application, the specifications of the proposed transmission poles have not yet been finalized.

(c) Where the Corridor extends into the County Lands, the Applicant will enter into a usage agreement with the County. At this time, the Applicant does not anticipate that the footprint of the Facility will extend over the paved surface of the road.

(d) Except as described in this Application, detailed engineering is in progress and has not been completed. Therefore, the Applicant cannot provide the requested information at this time.

(e) See response to HCHI IR 2(d).

(f) As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. If the Applicant requires the use of County Lands, then it will contact the relevant utilities.

(g) Please refer to response to HCHI IR 2(d).

(h) Please refer to response to HCHI IR 2(d).

Interrogatory 3

Preamble:

There is little to no evidence about how the transmission line will co-exist, both physically and operationally, with current and future HCHI distribution line requirements, as well as SWLP's collector line(s), along municipal road rights-of-way.

Question:

(a) Is the SWLP proposing that the transmission line be built on one side of the road and distribution lines on the other side of the road?

(b) Is the SWLP proposing that all distribution lines will share the transmission poles in some sort of joint use arrangement? Who is intended to own the poles? If so, what financial and operational arrangements are expected to occur?

(c) HCHI has requested SWLP to provide space on all new collector poles for two HCHI 3-phase 27.6 kV circuits everywhere its collector lines are built in order to facilitate HCHI's current and potential future needs to supply its load and distribution connected generation customers. If the SWLP is proposing a joint use arrangement, we ask that detailed pole configuration drawings be provided to show how it intends to accommodate the two 27.6 kV circuits of HCHI as well as its own collector line(s) and an overhead transmission line along municipal right-of-ways?

(d) Does SWLP agree that locating a pole within the municipal right-of-way increases the risk of damage from vehicles greater than either (i) locating the poles on private lands; or (ii) burying the line.

(e) Does SWLP agree that locating a transmission pole within the municipal right-of way increases the risk of damage to HCHI infrastructure?

(f) The existence of both distribution lines and a transmission line on the same poles would be expected to require shorter span lengths than a transmission line without distribution.

  (i) What span lengths has the SWLP planned for the transmission line along municipal road rights-of-way?

  (ii) Please provide a drawing showing the exact plan view with span lengths and pole locations for the entire distance of the transmission line along municipal road rights-of-way?

(g) Is SWLP aware of a study prepared for the British Columbia Ministry of Transportation entitled "Effects of High Voltage Transmission Line In Proximity of Highways" dated September 30, 2005 which includes a survey of "Utility Policies from other States and Provinces" (see attached) and notes that in Quebec a

transmission line above 50 kV is "not allowed in ROW' and "BC Hydro policy would not permit placing a distribution circuit (25 kV or less) on the same structures as 138 kV and higher voltage lines."

(h) Is SWLP aware of any location in Canada where a 230 kV transmission line is built parallel to and within a municipal road right-of-way which is 66 feet wide or smaller?

(i) If so, please provide the name of the street, municipality, and province.

(ii) If so, is the joint use of the poles:

(iii) If so, is a distribution line located within the same right-of-way at the location of the 230 kV line.

(i) Will the proposed transmission line be built to the Hydro One Networks Inc. standard for a 230kV line?

(j) Does the SWLP or any of its affiliates own or have planned any 230 kV underground lines utilizing XLPE cable?

(k) If the answer to (a) is yes please identify the locations, lengths, and completion date of these transmission lines.

(l) Has SWLP considered placing those portions of its transmission line which are planned for construction parallel to and within a road right-of-way underground?

(i) If not why not?

(ii) If the reason for rejecting underground 230 kV along road rights-of-way includes cost please provide cost estimates for both overhead and underground for the sections which are proposed parallel to and within a road right-of-way.

(m) Has SWLP considered potential hazards to distribution linemen (or other utility workers such a telecommunications) working in the vicinity of a transmission line?

(n) Has the SWLP performed any analysis of induction onto de-energized distribution lines running parallel and in close proximity to a 230 kV transmission line for the distances involved in this application?

(o) Can SWLP provide evidence about the magnitude of induced current and the changes in grounding cable size, additional grounding points, grounding procedures, and other related matters which HCHI will need to consider in working on its energized or de-energized lines due to the existence of a nearby overhead transmission line.

(p) SWLP notes that the transmission line will be designed to meet "galloping recommendations". What specific galloping mitigation measures are planned for those sections of the overhead transmission line which are parallel to and within a municipal road right-of-way?

(q) Has SWLP considered that HCHI and its ratepayers may be subjected to additional costs related to the cost of distribution service related to the use of the municipal right-of-way for a 230kV transmission line?

(r) What considerations for ice-loading have been taken into account for the design of the 230kV transmission line? If joint use pole arrangements are intended what other ice loading design of the distribution and communication wires has been used in the selection of the poles?

(s) Confirm space is available for third party attachments to the pole. If so, how much space? If not, why not?

Responses:

(a) As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. At this time the Applicant does not intend to place poles on the road across from existing distribution poles.

(b) As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. However, in the event that County Lands are required, the Applicant is currently in discussions with HCHI regarding potential joint use arrangements, expects those discussions to continue in good faith.

(c) Please refer to HCHI IRR 3(b).

(d) The Applicant is unable to either agree or disagree with the premise because it would require speculation on the part of the Applicant. The Facility will be built to meet or exceed all applicable safety standards.

(e) Please refer to HCHI IRR 3(d). However, generally speaking joint-use facilities would be considerably more robust than typical distribution infrastructure, and would be less likely to be damaged by vehicles or storms.

(f) Please refer to HCHI IRR 2(b).

(g) The Applicant was not aware of the referenced BC MoT study.

(h) While the Applicant is aware that there may be at least three facilities in Ontario where high voltage transmission is in the ROW, in some cases with joint-use of

poles, the Applicant does not have the specific details requested. However, the Applicant has a utility affiliate, Florida Power and Light Company (FPL). FPL has experience running co-located distribution and transmission lines in ROWs, but at this time the Applicant does not have the specifications of the ROWs in question.

(i) The Applicant will build the transmission line per NextEra Energy 230kV standards, modified as necessary to comply with applicable codes. The design of the interface to the Switching Station, as well as the overall protection & control for the Transmission Line, will be reviewed and approved by HONI.

(j) Neither the Applicant nor its affiliates own 230 kV underground lines utilizing XLPE cable in Canada. The Applicant is not proposing to use XLPE cables for the Transmission Line.

(k) The Applicant assumes that the reference to (a) is meant to refer to (j). As such, no response is required.

(l) No.

(i) The Applicant's and the industry's standard practice is to put 230kV transmission lines overhead. This standard is based on many considerations including, but not limited to, considerations related to construction, maintenance, operations, impact on land, and cost.

(ii) See response to item HCH IR 3(l)(i).

(m) The Applicant considers all potential hazards in the design, construction and operation of the Transmission Line, and will design the Facility to meet or exceed all applicable safety standards.

(n) As discussed elsewhere, because the Facility has not yet been engineered in detail, the exact distances of parallel location are not yet determined. However, the Applicant is affiliated with a utility that owns and operates many co-located distribution and transmission facilities and has not found induction to be an issue if properly designed.

(o) As discussed elsewhere, the final detailed engineering for the Transmission Line has not yet been completed. However, the Applicant anticipates that with proper design there will be no need for HCHI to modify their equipment or safety practices.

(p) As discussed elsewhere, the final detailed engineering for the Transmission Line has not yet been completed. However, at the current time the Applicant anticipates that galloping recommendations can be met with proper pole placement within the Corridor, meaning no other mitigation measures will be required.

(q) As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. However, the Applicant has also considered the cost effect of distribution service on a municipal right of way. In the event that the use of the County Lands is required, it is likely that the Applicant would attempt to negotiate joint use arrangements with HCHI.

(r) As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. Because of this the applicant has not considered the ice-loading for a joint use scenario. Ice-loading used for the selection of poles for the 230 kV line alone varies from a minimum of 12.5 mm to a maximum of 45 mm depending on the load case involved.

(s) It is not clear from the question which poles are being referenced, whether they are joint-use poles or poles owned exclusively by one party, whether on the County Lands or on private land. As referenced in Exhibit B-6-1, the Applicant is exploring whether it is possible to place the Transmission Line entirely on private land, which land has already been identified in the Application. In the event the Applicant is required to use County Lands, it will continue discussions on aspects such as third party attachments with HCHI.

Interrogatory 4

Question:

(a) SWLP's report entitled "Design and Operations Report, Version I" dated October, 2010 page 7 states:

"The Site Plan Report depicts the Project location, including two transmission line options, and two transforming substation options. Effective the date of this Report, two transmission line options are being considered with ongoing discussions with Haldimand Hydro to select a mutually agreeable option."

(i) When did the SWLP decide to proceed with its Option 1 as described in the evidence?

(ii) Why did SWLP select its Option 1 rather than its Option 2 which would have avoided transmission line construction completely along Concession 5 Road and even the need for a "Leave to Construct' application to the OEB?

(b) The SWLP states "Circumventing the County Lands would not involve acquiring any additional property rights or changing the proposed route of the Transmission Line, but rather would involve moving one to two poles 20 metres to one side, all within the proposed Corridor."

(i) What is the exact length of transmission line planned parallel to Concession 5 Road?

(ii) What is the exact length of transmission line planned parallel to Concession 4 Road?

(iii) Please elaborate on how moving "one to two poles 20 metres to one side" would enable "Circumventing the County Lands". Include diagrams if this would assist with clarification.

(c) Are there any existing nearby residences where regular vehicular access will require residents to pass under the transmission line in the proposed location along roadways?

(d) The easement indicates the grant is in perpetuity. The easement then indicates the agreement may be terminated and there is an obligation to remove the facilities. Should the grant in perpetuity not be restricted or impacted by the right to terminate? If yes, what is the intended impact? If not, why not?

Response:

(a) See below

(i) The decision to move from Option 1 to Option 2 was made in December, 2010.

(ii) Option 1 was selected over option 2 to optimize collector circuit design while minimizing the length of the transmission line.

(b) See below

(i) Approximately 2 km.

(ii) Approximately 150m.

(iii) Moving the poles 20m would place them on private land.

(c) The route of the Transmission Line was chosen specifically to minimize the impact on nearby residents. As such, the route of the Transmission Line does not cross any driveways.

(d) The easement is granted in perpetuity, but the grantee has the right to terminate and release the easement. If the grantee terminates the easement, then the grantee has an obligation to remove the facilities.

Interrogatory 5

Preamble:

A transmission line requires specialized linemen and specialized equipment in order to perform necessary maintenance and emergency repairs.

Question:

(a) What is the expected response time between event occurrence and linemen on site in order to perform emergency maintenance particularly when the problem may cause a power interruption or hazard to distribution connected generation customers?

(b) Where will the responding linemen and equipment be located? How far is this location from the transmission line?

(c) Will such linemen be located at the operations centre or on call, requiring travel to get to the operations centre to respond? If the linemen will be on call what is the mandated response time to arrive on site?

Response:

(a) As discussed elsewhere, the final design, and therefore the maintenance requirements, have not yet been completed, nor the need for joint-use of the poles. Individual response times will depend on the incident and the circumstances at the time. However, the Applicant plans on having a staff member trained for high-voltage work on site. In similar circumstances, typical response times would be 4-12 hours.

(b) The Applicant plans on having a staff member trained for high-voltage work on-site and would hire outside contractors for restoration purposes.

(c) Depending on the time of day, the linemen may be on-site at the operations centre or on call. Typical mandated response time for the Applicant's linemen is 2 hours.

Interrogatory 6

Preamble:

SWLP has indicated the application to the Ministry of the Environment ("MOE") was submitted on December 14, 2010. It also indicates that an open house meeting occurred on January 10, 2011.

Question:

(a) Please confirm the date the Renewable Energy Approval ("REA") application was submitted to the MOE.

(b) Will there any impact on the transmission line should the REA be delayed? If so, would the delays impact HCHI?

(c) What other permits, licenses and approvals, other than REA are required, for the transmission line?

Response:

(a) Please refer to OEB Staff IRR 3(i).

(b) If the REA is delayed, the construction schedule of the Transmission Line will be delayed. The delays would not impact Haldimand County Hydro.

(c) Please refer to OEB Staff IRR 3(i).