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BY E-MAIL ONLY

September 23, 2011

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto ON M4P 1E4

Dear Ms. Walli:

Re: Grand Renewable Wind, LP
Application for Leave to Construct Electricity Transmission Line and Related Facilities and Approval of form of Easement Agreement
Board File Number EB-2011-0063

Please find attached the Board staff's Submission with respect to the above proceeding. Please send copies to Applicant, Applicant's Counsel and all intervenors of record.

Yours truly,

Original signed by

Nabih Mikhail
Project Advisor
Electricity Facilities and Infrastructure

c. Mr. Jeong Tack Lee, Grand Renewable Wind LP
Mr. George Vegh, McCarthy Tétrault LLP
Ms. Kristyn Annis, McCarthy Tétrault LLP
Mr. James M. Cho, Samsung Renewable Energy Inc

Attachment:

BOARD STAFF SUBMISSION

GRAND RENEWABLE WIND LP

LEAVE TO CONSTRUCT TRANSMISSION FACILITIES EB-2011-0063

September 23, 2011

A. APPLICATION AND BACKGROUND

Grand Renewable Wind, LP (the "Applicant" or "GRW") filed an Application with the Ontario Energy Board (the "Board") dated February 28, 2011 under sections 92 and 97 of the *Ontario Energy Board Act*, *1998*, S.O. 1998, c.15, (Schedule B), (the "Act") seeking an Order of the Board to construct transmission facilities and approval of a form of easement agreement. The Application indicates that the transmission facilities are required to connect the Grand Renewable Energy Park (the "GREP"), to be located in Haldimand County, to the IESO-controlled grid. GRW is a Limited Partnership owned by two limited partners, Samsung Renewable Energy Inc ("SRE") and Pattern Grand LP Holdings LP ("Pattern LP"), as well as its general partner, Grand Renewable Wind GP Inc. The Application has been assigned Board File No. EB-2011-0063.

The work involves constructing approximately 19 kilometres of 230 kilovolt ("kV") transmission line, a collector substation consisting of two step-up transformers (34.5 kV: 230 kV), two transition stations to accommodate construction of an underground portion of the proposed 230 kV transmission line, and an interconnection station to connect to the existing Hydro One owned N5M 230 kV transmission line (the "Transmission Facilities").

The GREP will consist of a 153 MW wind power generating facility (the "Wind Project"), and a 100 MW solar photovoltaic generating facility (the "Solar Project"). The GREP covers an area of 7600 hectares of mainly agricultural land which will encompass both the Wind Project and the Solar Project.

GRW notes that while the Proposed Facility will be used to transmit the electricity generated from both the Wind Project and the Solar Project to the IESO-controlled grid, any electricity generated by the Solar Project will be transmitted for a price that is no greater than that required to recover all reasonable costs. In transmitting the electricity generated from the Solar Project, the GRW therefore relies on section 4.0.2(1)(d) of Ontario Regulation 161/99, "Definitions and Exemptions" made pursuant to the Act, to be exempt from the requirement to obtain a transmitter licence under section 57(b) of the Act. GRW has also indicated that it considers itself to be a generator pursuant to section 56 of the Act once the Wind Project achieves commercial operation. The Applicant therefore intends to submit a notice of proposal

to own transmission facilities pursuant to section 81 of the Act when it applies for a generating licence from the Board.

The Board issued a Notice of Application dated April 1, 2011 directing GRW to commence service and publication of the Notice. GRW has served and published the Notice as directed by the Board.

On August 3, 2011 the Board issued procedural Order No. 2 to accommodate GRW's request to delay the deadline of filing the interrogatory responses to August 12, 2011.

By letter dated August 18, 2001, the intervenor Haldimand County Hydro Inc. ("HCHI") advised the Board that it intended to file evidence relating to the need for a new transformer station in Haldimand County. HCHI believed the evidence to be necessary because the Transmission Facilities that are the subject of the current application, in HCHI's view, would provide an ideal connection to the new transformer station. Absent a requirement that the applicant be a licensed transmitter, it would presumably have no obligation to connect HCHI and allow it to use the Transmission Facilities. The evidence supporting the need for a new transformer station was filed on August 30, 2011.

On September 6, 2011 GRW filed a letter with the Board asking it to strike the evidence filed by HCHI on August 30, to justify the need for a new transformer station, on the ground that it had no relevance to the proceeding.

On September 8, 2011, the Board issued Procedural Order No. 3 setting out a schedule for the argument phase of the hearing, and stated that without seeking to limit the extent of submissions, it would be assisted if parties' submissions and arguments addressed the following four questions:

1. What are the responsibilities, if any, of the Applicant to provide access to its proposed Transmission Facilities?

2. Are broader transmission planning issues (i.e. beyond the Transmission Facilities proposed in the Application) relevant considerations in this proceeding? What responsibilities does the Applicant have, if any, with respect to broader transmission planning issues?

3. Does the fact that the proposed facilities will be located largely within a municipal right of way have any bearing on the Applicant's obligation regarding future requests for connection?

4. Does section 96(2) permit the Board to consider the impact of the proposed Transmission Facilities on the reliability of the current or future distribution system owned and operated by HCHI?

In Procedural Order No. 3, the Board also indicated that it welcomes argument on any other issue in this case that parties feel is relevant.

B. BOARD STAFF SUBMISSION

Board staff notes that the Applicant's Argument in Chief filed on September 16, 2011 addressed some of the concerns raised so far by all parties to this proceeding. Submissions of intervenors will clarify if there are remaining issues that have not yet been addressed by the Applicant.

After reviewing the evidence and carrying out the analysis set out below, Board staff is of the view that with appropriate conditions of approval to address any concerns regarding outstanding issues within the Board's jurisdiction that may be raised by other intervenors, it can approve the application.

B.1 Project Need

According to the Argument in Chief[1], the Applicant has executed two power purchase agreements with the Ontario Power Authority for the power delivered from the Wind Project and the Solar Project respectively.

The transmission line would be used to connect the two projects to the transmission system owned by Hydro One Networks Inc.

Board staff submits that the need for the transmission line has been established.

[1] Argument in Chief, September 16, 2011, paragraph 19.

B.2 Project Routing

The Applicant in its Argument in Chief[2] indicated that it examined six different routing options, has chosen the route with the least impact to the environment and landowners and that will meet all regulatory standards.

In response to a HCHI interrogatory[3], the Applicant provided a step by step description along with a map depicting the six alternatives and the process of elimination which ended with the selected proposed route.

Board staff is satisfied that the Applicant explored all feasible alternatives, and that the proposed route would meet all regulatory requirements. Board staff has no objection to the proposed route.

B.3 Addressing Potential Distribution Reliability Issues

The Applicant in its Argument in Chief[4]indicated that in the event that any of HCHI's distribution infrastructure needs to be relocated, the Applicant will be responsible for any costs incurred related to such to re-location. The Applicant further indicated in its argument that per the studies carried out in EB-2011-0027, it is evident that the issues raised by HCHI in that proceeding regarding induced voltage or grounding can be mitigated and addressed in the design of the proposed Facility. The Applicant also indicated in its Argument that as currently designed, the majority of the Transmission Line will be on opposite sides of the road from HCHI distribution infrastructure, so it is not anticipated that any such problems that can not be mitigated will arise. The Applicant went further and is recommending[5], in order to prevent any problems, to carry out a pre-construction study, to establish a baseline operation state, as it outlined in response to an HCHI interrogatory[6], where it stated that:

> *The Applicant would be responsible for any reasonable mitigation measures associated with stray voltage.*
> *It is recommended that a pre-construction study is carried out to highlight any areas where induced voltage may be significant. Induced voltages may only be of concern during maintenance outages on one line where the other line is live. These effects can be mitigated by using normal grounding methods and adherence to established maintenance procedures. Induced voltages during normal operating times on either*

[2] Argument in Chief, September 16, 2011, paragraphs 20 - 21
[3] Applicant Response to HCHI Interrogatory # 2, Question (h), August 15, 2011, pages 6 -8
[4]Argument in Chief, September 16, 2011, paragraph 22
[5] Argument in Chief, September 16, 2011, paragraph 22, last two sentences.
[6] Applicant Response to HCHI Interrogatory # 4, Question (c), August 15, 2011, page 14

> *line are not likely to be of major concern when both lines are live anyway. As induced voltages reduce exponentially depending on the distance between the lines, the best mitigation is to ensure adequate horizontal and/or vertical clearances, which clearances are set out according to Code.*

The Applicant has also confirmed that it would be responsible for any reasonable mitigation measures associated with stray voltage.

Board staff is hopeful that HCHI and the Applicant will formulate appropriate terms to cover and mitigate any potential issues that may arise due to the presence of the transmission line on the same right of way as existing and planned for distribution facilities of HCHI.

B.4 System Impact Assessment ("SIA") and Customer Impact Assessment ("CIA")

Board staff notes that the Applicant filed on August 2, 2011, the final SIA and CIA as required by the Filing Requirements for leave to construct proceedings.

SIA

The SIA[7] indicated that the scope of its study is the evaluation of the impact of the two sources of generation, from the wind and solar power projects via the Hydro One owned 230 kV circuit N5M, on the reliability of the IESO-controlled grid.

The SIA listed two sets of requirements[8]. The first set of requirements is for Hydro One, the owner of the 230 kV N5M circuit, in regard to protection modifications. The second set of requirements is for the Applicant and is divided into three specific requirements, and twenty general requirements.

The SIA concluded its findings by indicating that the proposed project does not have a material adverse impact on the reliability of the IESO-controlled grid and that it is recommending that a notification of conditional approval be issued subject to implementation of the requirements listed in the report[9].

[7] IESO's SIA Final Report, May 5, 2011 (Filed August 2, 2011), page 6
[8] IESO's SIA Final Report, May 5, 2011 (filed August 2, 2011), pages 7 - 10
[9] IESO's SIA Final Report, May 5, 2011 (filed August 2, 2011), page 10

Board staff notes that the Applicant in its Argument in Chief[10] acknowledged the SIA key requirements that the 230 kV overhead line, underground cable and 230 kV breakers do not have the required maximum continuous voltage rating of at least 250 kV. The Applicant also stated that it confirms for the Board, that the Applicant's final equipment selections will be made to ensure compliance to the maximum 250 kV voltage level for the main breaker and the 230 kV underground cable.

The Applicant finally indicated[11] that it is in contact with the IESO in regard to various issues including "unbundling" the SIA given that the Solar Project and Wind Project will be owned by different entities. The Applicant also indicated that the Board may also take it under advisement that the unique metering configuration for the Project has been developed in conjunction with the IESO, and therefore meets the IESO's approval, and the fact that the Solar Project will be owned by an affiliate of the Applicant does not change the findings of the SIA, which are technical in nature.

The SIA report included a Protection Impact Assessment Report[12] carried out by Hydro One for the IESO, which indicated in its conclusion that it is feasible to connect the proposed 154 MW of wind and 100 MW of solar generation to circuit N5M as long as certain proposed changes are implemented[13].

Board staff submits that it is confident that the IESO staff will ensure that all its conditions will be met, before it approves the project connection to the IESO-controlled grid.

CIA

Board staff notes that the CIA concluded[14] after reviewing the impacts of the proposed GREP on the existing transmission customers in the vicinity of the proposed connection, that this project does not adversely affect existing customers in the area.

Boards staff also notes that the Applicant confirmed[15] and indicated that it will make its required contribution towards the cost of short circuit mitigation measures at

[10] Argument in Chief, September 16, 2011, paragraphs 25 and 26
[11] Argument in Chief, September 16, 2011, paragraph 27
[12] IESO's SIA Final Report, May 5, 2011 (filed August 2, 2011), pages 68 - 72
[13] Ibid, page 70, Executive Summary
[14] Customer Impact Assessment final report, May 6, 2011 (filed August 2, 2011), Section 4, CONCLUSIONS AND RECOMMENDATIONS,
[15] Argument in Chief, September 16, 2011, paragraph 28

Caledonia TS. This requirement is triggered by the increase in short circuit levels at Caledonia TS within the 5% margin.

Board staff is satisfied that there are no negative reliability impacts on customer delivery points in the vicinity of the connection point of the project to the 230 kV N5M circuit.

B.5 Land Rights and Easement Agreement

Board staff notes that the proposed facility is developed across three types of land and it requires for each type, a distinct type of agreement. The three types are:

- three parcels of privately owned land – each requiring an Option Agreement and Ground Lease[16];
- the Haldimand ROW[17] which is owned by Haldimand County; and
- the Ministry of Infrastructure ("MOI") Lands – the Option agreements sought by the Ontario Realty Corporation ("ORC") who is the land manager of MOI[18].

Regarding the privately held lands, the Applicant in its Argument in Chief[19] indicated that each of the Landowners was provided with the appropriate Notice of Application. Board staff notes that one of the three Landowner who is an intervenor was replaced with another Landowner as reported by the Applicant in a Board staff interrogatory[20], (where Landowner A was replaced with Landowner D). As a result Board staff agrees with the Applicant[21] that the three current Landowners are not intervenors in this proceeding. The Applicant also indicated that Landowner B has executed the Ground Lease, a form of which was filed with the Board in this proceeding. The Applicant continues to negotiate with Landowner C and Landowner D, but expects to finalize the Ground Lease with the respective Landowners shortly.

In regard to the Haldimand ROW, the Applicant in its Argument in Chief[22] indicated that it is in the process of finalizing a Community Vibrancy Fund Agreement with Haldimand County. The Community Vibrancy Fund Agreement contemplates the

[16] Exh. A/Tab 2/Sch. 1/paragraph 13 & Exh. B/Tab 3/Sch. 1/paragraphs 41, 43
[17] Exh. A/Tab 2/Sch. 1/paragraphs 14 and 15 & Exh. B/Tab 3/Sch. 1/paragraph 54 & Exh. B/Tab 3/Sch. 3, Form of Easement _ Haldimand ROW
[18] Exh. B/Tab 3/Sch. 1/paragraphs 44, 45,46
[19] Argument in Chief, September 16, 2011, paragraph 31
[20] Applicant Response to Board staff interrogatory # 3 Question (ii)
[21] ibid
[22] Argument in Chief, September 16, 2011, paragraphs 30

parties concurrently executing a road use agreement for the Applicant's use of the Haldimand ROW. The Applicant also indicated that any issues raised by HCHI regarding the Applicant's proposed use of the Haldimand ROW, should be addressed to the owner of the Haldimand ROW, that being Haldimand County. The Applicant confirmed that it is not seeking exclusive use of the Haldimand ROW.

The Applicant indicated in its Argument in Chief[23] that the terms of the ORC Option Agreements are currently being negotiated between the ORC and the Applicant's parent company, Samsung Renewable Energy Inc. ("SRE"). The Applicant further indicated that all commercial terms have been agreed to with the exception of a few real estate specific clauses, which are being negotiated in order to satisfy legal requirements for leasing land from the government[24].

B.6 Renewable Energy Approval ("REA") Process

REA Process

The Applicant indicated in its Argument in Chief[25] that it has completed the draft REA documents (the "Draft Documents") and has posted the Draft Documents for public review, and that the Applicant is within the public comment period prior to the second and final public open house. The Applicant further submitted that it has scheduled the second public open house for September 22, 2011, and that the next step under the REA process is to complete the public consultation report. The public consultation report is the last document needed prior to submitting the REA package and application form along with the required security deposit to the Ministry of Environment. The Ministry of Environment will then review the package for completeness and, if deemed complete, will begin their technical review of the materials.

Board staff noted that the Applicant filed a letter with the Board dated August 10, 2011 to provide an REA update, which is consistent with the Applicant's Argument in Chief[26] where it provided further clarifications. The Applicant indicated that the REA includes an assessment of the Facility, mentioned throughout the Draft Documents, the Natural

[23] Argument in Chief, September 16, 2011, paragraphs 32
[24] Applicant Response to Board staff Interrogatory #6, Question (i)
[25] Argument in Chief, September 16, 2011, page 10
[26] Argument in Chief, September 16, 2011, Paragraph 33

Heritage Report, the Construction Report and the Design and Operations Report (which form part of the Draft Documents).

B.7 Impact on Ratepayers

The Applicant in its Argument in Chief [27] stated that "The Facility, including the Interconnection Station, will be entirely paid for by the Applicant. As such, the Facility will not impact transmission rates in Ontario".

Board staff notes that the Applicant is paying for all transmission facilities including the Interconnection Station as prescribed in the Transmission System Code ("TSC") and applicable Bulletins. Board staff also notes that there is no material investment in the Network portion of the Provincial Transmission System to accommodate this project. Board staff therefore concludes that the project appears to have no impact on transmission rates in Ontario.

B.8 Outstanding Issue and Response to Board Questions

Board staff will address the issue of whether the TSC provisions and obligations are binding on the Solar Project under the proposed ownership structure in addition to the four questions posed by the Board as stated in Procedural Order No. 3.

Question 1: What are the responsibilities, if any, of the Applicant to provide access to its proposed Transmission Facilities?

(I) Exemption from requirement to hold transmission licence

Pursuant to section 26(1) of the *Electricity Act*, licensed transmitters in Ontario are required to provide generators, retailers and consumers with non-discriminatory access to their transmission systems. Many of the details on how non-discriminatory access is to occur are contained in the TSC, which also applies to licensed transmitters.

If a transmitter is not licensed, it is not covered by the provisions of section 26(1) of the *Electricity Act*, or the provisions of the TSC. Un-licensed transmitters, therefore, do not have any legal obligation to provide non-discriminatory access to their systems.

[27] Argument in Chief, September 16, 2011, Paragraph 38

The Applicant asserts that it is exempt from holding a license pursuant to section 4.0.2(1)(d) of O. Reg. 161/99, which states that:

> **4.0.2** (1) Clause 57 (b) of the Act and the other provisions of the Act listed in subsection (2) do not apply to a transmitter that transmits electricity for a price, if any, that is no greater than that required to recover all reasonable costs if, […]
>
> (d) the transmitter is a generator and transmits electricity only for,
>
> (i) the purpose of conveying it into the IESO-controlled grid

Board staff agrees with the Applicant's submission that the Board has no discretion with respect to this section: if the Applicant is captured by this exemption, the Board cannot require it to hold a licence. If the Applicant does not hold a licence, it does not have a duty to connect.

The extent to which the exemption actually applies to the Applicant, however, needs to be explored. As described above, GRW will own and operate both the proposed Transmission Facilities and the Wind Project. The Solar Project, which will also use the proposed Transmission Facilities, will be owned by a separate but yet to be named entity. The precise relationship between the owner of the Solar Project and GRW is not currently known.

In assessing this issue, the Board must be guided by the principles of statutory interpretation. In *Sullivan and Driedger on the Construction of Statutes*, the modern principles of statutory interpretation are described as follows:

> There is only one rule in modern interpretation, namely, courts are obliged to determine the meaning of legislation in its total context, having regard to the purpose of the legislation, the consequences of proposed interpretations, as well as admissible external aids. In other words, the courts must consider and take into account all relevant and admissible indicators of legislative meaning. After taking these into account, the court must then adopt an interpretation that is appropriate. An appropriate interpretation is one that can be justified in terms of (a) its plausibility, that is its compliance with the legislative text; (b) its efficacy, that is, its promotion of the legislative purpose; and (c) its acceptability, that is, the outcome is reasonable and just.[28]

[28] Ruth Sullivan, *Sullivan and Driedger on the Construction of Statutes* (3rd ed.), Butterworths (Toronto), 1994, p. 131

There appears to be little question that the Applicant will be both a transmitter and a generator. There appears to be little question that the Applicant will be using the proposed facilities to convey the electricity it produces through its generation facility (i.e. the Wind Project, which it also owns) to the IESO-controlled grid. What is not clear, however, is whether the Applicant transmitter will be a generator that is transmitting electricity only for the purpose of transmitting it to the IESO-controlled grid. In order to answer this question, it is necessary to determine what the word "it" (in 4.0.2(1)(d)(i)) is referring to. Is it referring to the transmission of electricity generally, or is it referring only to the transmission of electricity that was generated by the transmitter itself? Board staff submits that the most sensible interpretation is the latter. If "it" referred to the transmission of electricity generally, there would not necessarily be any direct connection between the transmitter's transmission facilities and its generation facility. Consider the following example: Company A owns a generation facility in Thunder Bay and wishes to build a transmission line for some other purpose in Kingston. If the word "it" refers to the transmission of electricity generally (as opposed to electricity produced by the generation facilities owned and operated by Company A), then Company A would be exempt from holding a transmission licence, even though there is no physical connection between its generation facility and transmission facility. Surely this could not be the intended meaning of the section. The most reasonable interpretation, therefore, is that "it" refers to electricity produced by the generator (which is also the transmitter) itself.

However, we must also consider the rest of the provision. The beginning of the section makes reference to transmitting electricity for a price, if any, no greater than that required to recover all reasonable costs. The reference to price suggests that a third party may be involved – in other words that the transmitter is (at least potentially) conveying someone else's electricity. Under some circumstances, then, a transmitter that conveys electricity other than that it produces itself can be eligible for an exemption. Indeed, the Applicant makes several references to the fact that the "electricity generated by the Solar Project will be transmitted for a price that is no greater than that which is required to recover all reasonable costs"[29], which mirrors the language in the regulation.

In order to be eligible for a licence exemption, however, a transmitter must meet all of the requirements of the regulation (or, specifically in this case, all of the requirements of 4.0.2(1)(d)(i)). Simply conveying electricity for a price no greater than that required

[29] Argument in Chief, September 16, 2011, paragrapf 3.

to recover all reasonable costs does not, on its own, entitle a transmitter to an exemption. It must also transmit electricity only for the purpose of conveying its generated electricity to the IESO-controlled grid.

In addition, it is not clear, however, that the language regarding price has any relevance to subsection (d), which is the subsection under which the Applicant asserts it is licence exempt. As described above, subsection (d) appears to contemplate that the transmitter will be conveying only its own electricity to the IESO-controlled grid. Given this wording, it may well have been the intent of the regulation that the references to price do not apply to subsection (d) (which specifically states: "for a price, *if any*, …"). The reference to price may instead have been included as it is applicable to other subsections; for example subsection (a) or subsection (b). Alternately, the "price" may refer to the generator's own costs of getting its electricity conveyed to the IESO-controlled grid, since for instance in negotiating a power purchase agreement with the OPA, the generator's negotiated price would where applicable include the cost of the transmission component.

The applicability of section 4.0.2(1)(d) to the Applicant, therefore, is not certain. The Applicant intends to allow a third party (the Solar Project) to use its transmission facilities to convey electricity to the IESO-controlled grid. It therefore cannot be said to be transmitting electricity only for the purpose of transmitting its own generation to the IESO-controlled grid. Although the references to price at the beginning of the section appear to contemplate the participation of a third party, the exemption only applies if a transmitter meets all of the criteria in the section.

Despite this uncertainty, it is Board staff's submission that this analysis need have little impact on the current proceeding. This is an application for a leave to construct approval, not a licensing proceeding. Both licensed and un-licensed transmitters require section 92 approvals to construct transmission facilities. The tests employed by the Board in both cases are essentially the same; indeed the licensing status of leave to construct applicants is seldom even remarked on.

The Board can approve the current application whether or not the Applicant is licence exempt. Any licensing issues can be dealt with in the future, for example when the Applicant files its notice of proposal to own transmission facilities pursuant to section 81 of the Act.

(II) Will the Provisions of the TSC be binding on the Solar Project?

The Applicant's status as an unlicensed transmitter may also raise an issue relating the applicability of the TSC to the Solar Farm.

A Board staff interrogatory[30] was framed to explore the issue of whether the TSC would be binding on the 100 MW Solar Project since the Applicant will not own that Solar Project and would only own and operate the proposed transmission facilities and the Wind Project. In its response, the Applicant stated in part that:

> *The Applicant is relying on section 4.0.2 of Reg. 161/99 of the TSC to be exempt from obtaining a transmitter licence. This exemption is consistent with both the terms of Reg. 161/99 and past practice at the Board.*

The Applicant also in its response to that same interrogatory[31] stated in part that:

> *However, pursuant to section 4.1.1 of the TSC, the Applicant and Grand Renewable Solar LP would enter into a connection agreement, similar to the form of connection agreement set out in Appendix 1 – Version B of the TSC.*

Board staff submits that while section 4.1.1 directs transmitters to conclude a connection agreement to provide transmission service, the TSC according to section 3.0.5 indicates that the TSC will only be binding on any such customers (the Solar Project in this case) if the transmitter (the Applicant in this case) has a transmission licence. Section 3.0.5 of the TSC states in part that:

> *3.0.5 ….<u>this Code applies to all licensed transmitters and to all transactions and interactions between a licensed transmitter and its customers</u> and between a licensed transmitter and its neighbouring Ontario transmitters. .[underlining added for emphasis]*

An important objective is to have a generation site such as the Solar Project be bound by the technical requirements of TSC, via the Connection Agreement. The Connection Agreement itself includes under PART NINE titled "TECHNICAL AND OPERATING REQUIREMENTS" a comprehensive list of requirements for installation and operations of the customer's facilities. Section 24 titled "Facility Standards" contains various requirements for installation and performance of the customer facilities detailed in sections 24.1 through 24.6. For instance section 24.5 states that:

[30] Applicant Response to Board staff Interrogatory # 10 , Question(i), page 16, August 15, 2011
[31] Applicant Response to Board staff Interrogatory # 10 , Question(i), page 16, August 15, 2011

> *The Customer shall, at the Transmitter's request, permit the Transmitter to participate in commissioning, inspection, and testing of the Customer's facilities so as to enable the Transmitter to ensure that the Customer's facilities will not adversely affect the reliability of the Transmitter's transmission system.*

Board staff concludes that unless the proposed ownership structure is changed so that the Applicant owns the transmission facilities as well as both the Wind Project and the Solar Project, the provisions of the TSC will not be binding on the Solar Project. This is a concern to Board staff and Board staff believes it should be dealt with in the future, perhaps when the Solar Project applies for a generation licence.

Question 2: Are broader transmission planning issues (i.e. beyond the Transmission Facilities proposed in the Application) relevant considerations in this proceeding? What responsibilities does the Applicant have, if any, with respect to broader transmission planning issues?

Several parties in this proceeding have raised concerns regarding what they see as "gaps" in the planning process for transmission infrastructure in Haldimand County and environs. Although there may indeed be room for improvement in the way in which energy infrastructure projects are coordinated, Board staff submits that these issues are generally not relevant in the current proceeding.

(I) What responsibilities does the Applicant have, if any, with respect to broader transmission planning issues?

Board staff submits that the Applicant has little, if any, direct responsibilities with respect to broader transmission planning issues. The Applicant is, of course, required to follow all applicable laws, codes, regulations and similar regulatory and legal instruments. None of these instruments currently place any direct responsibility on the Applicant to consider planning anything other than its own proposed transmission facilities. This is in many ways a sensible outcome, as the Applicant cannot be expected to hold knowledge regarding the province's broader transmission requirements, and it has no real mandate to address these issues in any event.

(II) Are broader transmission planning issues (i.e. beyond the Transmission Facilities proposed in the Application) relevant considerations in this proceeding?

Unlike the Applicant, the Board does have some responsibilities with respect to ensuring that transmission build out is conducted in an orderly and sensible manner. (Other agencies arguably have greater responsibilities in this regard – for example the Ontario Power Authority). Regardless, it is Board staff's submission that broader transmission planning issues are not of central relevance in the current case.

There is currently no formal higher level transmission plan for the Niagara Region. Future proceedings may result in such a plan or new processes to arrive at such a plan: for example the Integrated Power System Plan, or the Board's own recently announced Regional Planning[32] initiative. It is unlikely that any plans (of whatever nature) will be finalized in the short term, or even medium term.

It is not reasonable to expect that an Applicant should await the outcome of these future proceedings. Indeed, it is not even certain that these proceedings (or other proceedings) would impact the current application even if they were already completed. It is the Applicant's responsibility to file an application in accordance with the current regulatory framework. It has done so, and it would not be reasonable to delay a decision in this matter based on speculative future planning requirements that may or may not arise in the future.

With that said, Board staff has some observations on how transmission facilities might be better planned and integrated in the future.

Multi-faceted Approval Process

Board staff submits that dealing with the question of what responsibilities the Applicant has, if any, with respect to broader transmission planning initiative, would by definition require a willing Applicant, likely triggered by regulatory requirements such as a transmission licence, and involve participation and cooperation with other parties in the process of defining how best can the proposed project serve the integrated requirements of various other parties.

[32] Board Initiative- Regional Planning, initiated on April 1, 2011, proceeding File No. (EB-2011-0043)

Board staff submits that the following are critical factors for a successful conclusion:

- early recognition of the noted integrated requirements; and
- knowledge of the timelines and deadlines of various regulatory reviews and requirements of which elements often occur concurrently.

For instance, portions of the environmental assessment process as prescribed by the Renewable Energy Approval ("REA") requirements and the leave to construct ("LTC") application with the Board for these same facilities, often proceed somewhat concurrently.

Other processes may also overlap with both the REA processes and the LTC proceedings such as the System Impact Assessment conducted by the IESO, and the Customer Impact Assessment conducted by licensed transmitters such as Hydro One Networks Inc. Local distributors, such as HCHI, could also be involved as they frequently need to plan for expansion of their distribution system infrastructure which can include possible additional transformer stations to meet system load growth.

Achieving Benefits of Broader Transmission Planning – Short and Medium Term

Transmission Licence

Board staff is of the view that in the short term, and in the event that the Applicant would be required to acquire a transmission licence, some benefits of broader transmission planning can be achieved. This could then lead to a proposed design by the Applicant that could accommodate the needs of HCHI for a new transformer station[33] to meet its load growth. Under such an outcome, Board staff is of the view that the consequences of such coordinated planning would benefit all parties due to lower overall costs, rather than accommodating each connection separately.

A proposal to achieve further benefits of broader transmission planning in the short term was articulated by a HCHI letter[34] which called for the coordination and optimization of the connection to Hydro One Networks Inc.'s transmission system of three renewable energy projects, in Haldimand County. Two of these projects are seeking leave to construct with the Board and they are this GRW Project, and the

[33] HCHI's evidence, filed on August 30, 2011 justifying HCHI's need to a new transformer station
[34] HCHI's letter filed with the Board on August 25, 2011 titled "Transmission Optimization – Jurisdictional Issues, Board File No. EB-2011-0027 and EB-2011-0063.

Summerhaven Wind LP's Project (EB-2011-0027). The third project is the Port Dover and Nanticoke Wind Farm ("PDNW"). Board staff submits that implementation of such a coordinated scheme would benefit all parties including ultimately transmission ratepayers, but would on the other hand likely cause delays in the Board granting leave to construct the two noted projects, as well as delays in construction completion for all three projects.

In conclusion, it is Board staff's view that in the short to medium term it is possible to achieve some benefits in the area of transmission planning with a more coordinated approach. To achieve this, however, different structures or arrangements would have to be put into place and these will be covered later in the submission.

Preliminary System Impact Assessment Study

Board staff submits that early stage proactive involvement of the IESO and the involved licensed transmitter in engaging with generators who applied to the Board for leave to construct as well as involved large consumers and distributors (the "Load Customers") would increase the chances for achieving benefits of broader transmission planning for all parties.

Board staff further notes that the IESO and the involved licensed transmitter are in best position to know of other generation projects wishing to connect in a certain area of the IESO-controlled grid as well as needs of large consumers or distributors who may be planning to construct transmission facilities to meet load growth requirements in that same area.

Board staff submits that one of the tools for early definition of coordinated transmission planning requirements is for the IESO to conduct a Preliminary System Impact Assessment ("Preliminary SIA") in certain situation. Board staff further submits that the cost of conducting such a Preliminary SIA could be shared by all beneficiaries including the generation proponents, the licensed transmitter and the Load Customers.

Board staff is aware that the IESO's protocol in the past used to require completion of a Preliminary SIA for all applications, but amended its approach by eliminating that requirement in response to cost objections by parties. These concerns were raised due to the cost responsibility being attached to individual applicants and in addition it

was felt that the Final SIA conclusions were often not materially different from those of the Preliminary SIA. However under the noted circumstances, Board staff believes that it would be cost effective and would promote better outcomes for the IESO to re-introduce the requirement for a Preliminary SIA. The IESO could make a determination where such an approach is warranted and, as outlined above, cost of this study could be shared by all beneficiaries including the generation proponents, the licensed transmitter and the Load Customers.

Achieving Benefits of Broader Transmission Planning – Long Term

Board staff notes that the Board's Regional Planning initiative[35] launched on April 1, 2011, which initiated a consultation process aimed at promoting the cost-effective development of electricity infrastructure through coordinated planning on a regional basis, could potentially be effective in addressing issues similar to those encountered in this proceeding.

Board staff submits that the scope of the above-noted Board initiative should include the issues raised by HCHI in its noted letter[36], which listed the following as issues that need to be addressed:

a) optimizing the connection to the transmission grid;
b) optimizing the routing and expansion of the transmission grid; and
c) obligations of entities that rely upon the municipal rights of way for their business without charge but may not have any obligation to act in the public interest.

Board staff agrees with Hydro One's views[37], and believes that the scope of the noted Board's initiative should include the issues raised by HCHI as articulated by Hydro One where it stated in part that:

> *In Hydro One's view, the issues raised by HCHI are important and warrant addressing. Hydro One notes that also likely to be of assistance in the longer term in addressing the issues raised by this and similar future situations is a robust regional planning approach that would identify load and generation needs over the short, medium and long term and lead to a rational set of transmission and distribution plans.[underlining emphasis added by B.staff]*

[35] Board Initiative- Regional Planning, initiated on April 1, 2011, proceeding File No. (EB-2011-0043)
[36] HCHI's letter dated August 25, 2011, pages 1 - 2
[37] Hydro One's letter filed on August 29, 2011 in support of HCHI's views in regard to Transmission Optimization

Question 3: Does the fact that the proposed facilities will be located largely within a municipal right of way have any bearing on the Applicant's obligation regarding future requests for connection?

Board staff submits that under the existing regulatory regime, the short answer to this question is "no".

A transmitter's rights to build on public rights of way are contained in section 41 of the *Electricity Act*. Where the location of the facilities cannot be agreed upon between the transmitter and the municipality, the matter will be determined by the Board, except if the transmission facilities are the subject of a section 92 leave to construct application (s. 41(9) of the *Electricity Act*). It is not entirely clear that the Board has any authority to settle such disputes in a section 92 hearing, as section 96(2) strictly limits the scope of section 92 proceedings. It should be noted that Section 96(2) of the Act was added after section 41(9) of the *Electricity Act* was enacted – prior to this amendment presumably location issues could have been dealt with in a section 92 application (it is uncertain if this was the Legislature's intention or an oversight).

In the current proceeding, HCHI and Haldimand County may raise issues in their submissions concerning municipal rights of way. According to the Applicant Argument in Chief[38], it is working with Haldimand County to finalize an easement agreement. Even if a dispute arose, it would not be relevant to the Applicant's obligations regarding future requests for connection.

Question 4. Does section 96(2) permit the Board to consider the impact of the proposed Transmission Facilities on the reliability of the current or future distribution system owned and operated by HCHI?

The Act and the Board's Jurisdiction

In determining whether or not to grant a leave to construct application under section 92 of the Act, the Board is bound by constraints contained in section 96(2):

> *In an application under section 92, the Board shall only consider the following when, under subsection (1), it considers whether the construction, expansion or reinforcement of the electricity transmission line or electricity distribution line, or the making of the interconnection, is in the public interest:*

[38] Argumant in Chief, September 16, 2011, paragraph 30

1. *The interests of consumers with respect to prices and the reliability and quality of electricity service.*
2. *Where applicable and in a manner consistent with the policies of the Government of Ontario, the promotion of the use of renewable energy sources.*

Therefore, in order to consider impacts of the proposed Transmission Facilities on HCHI's current or future facilities, the Board would essentially have to determine that the proposed Transmission Facilities impacted the interests of consumers with respect to prices and the reliability and quality of electricity service.

Consumer Interest Regarding Prices and Reliability and Quality of Electricity Service

Historical Background

Since the Act came into force, generally applications for leave to construct electricity transmission lines under section 92, involved transmission routes using dedicated transmission rights of way ("ROW"), and were located away from distribution lines, except for occasional crossing over distribution lines. In virtually all of these cases, the transmission facilities were not co-located with such distribution lines along public roads.

In safeguarding consumer interests, the Board's approach in previous applications was to assess the impact of the proposed project on consumers in regard to costing and pricing effects as well as in regard to the reliability and quality of electricity service. Consumer interests related to any project's costing and pricing impacts are assessed by ensuring proper application of the cost responsibility framework set out in the TSC. Consumer interests in regard to reliability and quality of electricity service are assessed by both the Independent Electricity System Operator (the "IESO") and by the licensed transmitter to whose transmission system the Applicant's transmission line is connected.

With regard to the above noted protocol, the IESO would complete a System Impact Assessment ("SIA") study which is intended to assess the effect of an Applicant's transmission system on the IESO-controlled grid. An SIA report normally includes certain requirements to be implemented for continued reliability and quality according to the IESO's standards and other standards set by other reliability organizations in North America. The SIA study is not focused on the impacts of the Applicant's

transmission on large consumers and distributors connected to the transmission system in the vicinity of the Applicant's project.

Regarding the assessment of the licensed transmitter, to whose system the Applicant's transmission line will be connected, that licensed transmitter performs a Customer Impact Assessment ("CIA") which examines the impact of the Applicant's proposed project on all delivery points owned by or supplying electricity to either large consumers or electricity distributors who are connected to the transmission system in the vicinity of the project. A CIA study is intended to examine various aspects of reliability and quality of electricity service such as the short circuit levels, voltage regulations levels as compared to acceptable standards as well as the efficacy of existing protection and control schemes.

The Current Application

In the current application, HCHI may in its submission raise issues related to possible negative impacts of the proposed transmission facilities on the prices, and reliability and the quality of electrical service in relation to HCHI's existing (or planned) distribution system. This possibility exists because the proposed transmission line route will co-locate with HCHI's distribution lines on portions of Haldimand County Road 20. Board staff's response to this question, therefore, may be largely theoretical as the Board may not be called upon to make any decision in this regard. Regardless, Board staff offers the following thoughts.

To the extent that the proposed transmission facilities have an impact on the quality or reliability of electricity service as it exists today, Board staff submits that these issues would clearly fall within the scope of the current proceeding. Quality and reliability of electricity service as described in section 96(2) apply not only to the (proposed) facilities of the applicant, but to the electricity system as a whole. The very purpose of the CIA and the SIA is to determine what impacts, if any, the proposed facilities will have on existing facilities that are not owned or otherwise related to the applicant. In this proceeding, if there were to be material impacts on HCHI's distribution system that are not considered through the CIA or SIA, then it follows that a consideration of these impacts would also fall within the scope of this proceeding. The relevance of impacts on any possible future HCHI distribution projects is more difficult to assess.

Board staff takes a similar position with respect to price. In most cases where a proponent proposes to pay for the facilities itself (like the current case), there are no price impacts on electricity consumers, and therefore no reason for the Board to consider this issue. In theory, however, the construction of a transmission line could lead to a requirement to upgrade neighbouring transmission or distribution facilities that are not part of the application. If these facilities are owned by rate regulated entities, then these upgrades (or other mitigation measures) could have price impacts on customers of those utilities (which for transmission utilities would be all provincial ratepayers). If the Board is permitted to consider the reliability and quality of service impacts on third parties arising directly from the proposal (for example through the CIA and SIA), then it follows that there may be circumstances in which the Board can consider how the costs of upgrades to third party facilities attributed to the proposed project will be passed on to ratepayers. Board staff submits that this view is consistent with the Board's decision in EB-2005-0478 (cited in the Applicant's argument in chief), where it stated:

> *"The Board agrees with the Applicant that the relevant consideration is the impact on electricity transmission rates due to the construction of the proposed facilities."*

To the extent that the application leads to a material and direct increase in transmission rates (or distribution rates), this would appear to be within the scope of the Board's power to review. Any such review would have to be based, of course, on clear evidence.

Environmental Effects versus Direct Impacts of Transmission on Distribution

Board staff noted that the Applicant indicated in its evidence[39] that the electrical influences on the environment caused by high voltage power transmission lines include:

- The effects of electric fields;
- The effects of magnetic fields;
- Radio interference;
- Audible noise; and,
- Ground currents and corrosion effects.

Board staff submits that the effects of the items listed would be considered as environmental related unless any one of these aspects cause reliability or quality

[39] Exh. B/ Tab 3/ Sch. 1/pp. 5-6/ Paragraph 60

deterioration to the existing or near future planned distribution system (or to its distribution customers) triggered by impacts of the proposed transmission system co-locating in the same ROW as the existing or near future planned distribution system. The Applicant response to a Board staff interrogatory[40] indicated that it agreed with Board staff's view.

Board staff further submits that if induction impacts, due to co-location of transmission facilities on distribution facilities negatively affect the reliability of a distributor's distribution system or any of its customers, these impacts should be considered within the Board's jurisdiction and not to be classed as environmental matters.

All of which is respectfully submitted

[40] Applicant Response to Board staff Interrogatory # 14, page 23 filed August 15, 2011