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BY COURIER, EMAIL AND RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
27th Floor, Box 2329
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Transmission Optimization – Jurisdictional Issues
Board File No.: EB-2011-0027 and EB-2011-0063

We are counsel to Haldimand County Hydro Inc. (“HCHI”) the local electricity distributor in the County of Haldimand in the above-noted proceedings. We are writing in respect of the current approvals process for renewable energy projects that require the construction of transmission lines which creates silos of responsibility for the Ontario Energy Board (“OEB”), the Independent Electricity System Operator (“IESO”); the Ministry of the Environment (“MOE”), Ministry of Energy and Infrastructure (“MEI”) and the Ontario Power Authority (“OPA”).

I want to be clear that HCHI supports the development of clean renewable power and does not oppose any of the wind or solar projects that have been proposed to be constructed. However, HCHI has a concern that the current jurisdiction of the various approval organizations is such that the overall public interest is not being properly served by permitting or worse, effectively mandating, a sub-optimal development of transmission resources.

This situation is evident in the lack of coordination in respect of 3 projects, the Port Dover and Nanticoke Wind Farm (“PDNW”), the Summerhaven Wind Energy Centre (“SWEC”) and the Grand Renewable Wind Project (“GRWP”). The SWEC and GRWP have applications currently underway at the OEB seeking leave to construct the transmission lines, proceeding EB-2011-0027 and EB-2011-0063 respectively. In response to interrogatories, see attached, it appears that the current process may actually discourage, rather than encourage, developing a preferred solution.

The current situation gives rise to the following issues: (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.

Given the issues raised by the various parties regarding jurisdiction, responsibility, timing of approvals and contractual constraints, HCHI would suggest that a Ministerial Directive pursuant to section 28.6 of the *Ontario Energy Board Act, 1998*,¹ reproduced below, may provide a solution that could adequately address the interests and concerns of the various parties and result in a technically superior, more cost effective and environmentally less impactful resolution.

28.6 (1) The Minister may issue, and the Board shall implement directives, approved by the Lieutenant Governor in Council, requiring the Board to take such steps as are specified in the directive relating to the connection of renewable energy generation facilities to a transmitter's transmission system or a distributor's distribution system.

(2) A directive issued under subsection (1) may require the Board to amend the licence conditions of distributors, transmitters and other licensees to take the actions specified in the directive in relation to their transmission systems, distribution systems or other associated systems, including enhancing, re-enforcing or expanding their transmission system or distribution system.

HCHI ask the Board to consider whether it could or should request the Minister to issue a directive as permitted by the section 28.6 of the *Ontario Energy Board Act* to empower the various agencies to develop a better solution for the connection of PDNW, SWEC and GRWP.

Connection

Attached to this letter is a map showing the proposed transmission lines for the SWEC and GRWP. PDNW does not require a transmission line but will also connect to the existing Hydro One Networks Inc. ("HONI") transmission system. The map shows the three proposed connection locations to the transmission system occurring within a total distance of less than 15km of each other. The IESO in its System Impact Assessment strongly recommended that PDNW and SWEC have a common connection location. Whether the connection to the same or a different circuit is preferred will be left to the technical experts with the IESO, HONI and the proponents.

The proponents of the SWEC and PDNW have indicated that for reasons of complying with the terms of the OPA contract and consideration of the renewable energy approval it is not possible for them to alter their current proposals and have a combined connection location. The IESO, in particular disagrees with the proponents' position. If the in-service date or process review driving decisions and actions is somewhat arbitrary then HCHI feels

¹ S.O. 1998, c.15 Schedule B.

it is appropriate to question if there is another solution that can address the needs of the various parties.

HONI acknowledged the use of two separate connection stations for SWEC and PDNW will cost significantly more to construct, operate and maintain. It is also apparent from the record that SWEC and PDNW relied upon issues surrounding the OPA contract and the MOE's time to review the renewable energy approval to justify the less than optimal proposal. Given the Board's statutory objectives² regarding cost effectiveness and the rational expansion and development of the transmission system, HCHI is of the view that a regulatory gap may currently exist and, if not corrected, could result in decisions that may be less than optimal.

During the course of the OEB proceeding for SWEC, EB-2011-0027, it is apparent that the IESO did not feel it had the jurisdiction to force SWEC and PDNW to a common connection despite the technical superiority of a common connection. Specifically, the IESO noted in EB-2011-0027 in its June 22, 2011 submissions at paragraph 8 the following:

"It is expected that there will be numerous similar situations going forward, especially given the number of projects that are currently in the pipeline and planned. The IESO's current mandate doesn't specifically empower it to enforce or impose an optimum connection alternative or solution in respect of connection assessment proposals that are carried out by the IESO. Given this gap in the planning process, the IESO would encourage the Board to take a holistic approach to its review and consideration of this issue, with the aim of providing a "balanced" outcome in this proceeding, but more importantly, provide clearer guidance for how such issue should be dealt with in the future when parties are faced with such situations. Also, the IESO encourages the Board, as deemed necessary, to consider the most appropriate regulatory mechanism by which this should be instituted."

During interrogatories in EB-2011-0063, GRWP indicated that it avoided an option that would have located it closer to SWEC. In response to HCHI IR#2(f), GRWP stated:

"The Applicant does not have the legal right to extend the Summerhaven transmission line. Furthermore, Summerhaven and the Applicant are connecting to different circuits. These circuits were identified in their respective applications to the Feed-in-Tariff program and bind the Applicant and Summerhaven to these particular interconnection points."

Precisely HCHI's point, the existing procurement and regulatory approval system does not cause the desired behavior, the rational expansion of the transmission grid, or maximize the public interest. The provincial regulatory system should encourage efficiency and the optimization of infrastructure.

² Ontario Energy Board Act, section 1.

Transmission Routing

HCHI's second concern is the selection of routing for transmission lines associated with these renewable energy projects. There is no regulatory body that has direct authority to ensure there is a coordinated approach to transmission projects. In fact it appears from the responses of GRWP that the regulatory system forces entities to avoid cooperation. Of particular note is GRWP response, EB-2011-0063, HCHI IR#2(h) reproduced below:

"At the June meeting of the Applicant, the IESO, OPA, OEB, Hydro One and MEI, all parties expressed a preference for Option 1, Option 4, and Option 6. Option 1 was replaced with Option 5 since it was preferred by the Applicant to remain clear of the NextEra and Capital Power wind generation projects, generally located in the land area south of Haldimand Road 20 and Concession 7. The initial six route options are shown on the Line Routes map attached hereto as **Schedule B**. In summary, Options 1 and 2 were ruled out to avoid conflict with the NextEra and Capital Power projects."

As evident from the above response, GRWP acknowledged it attended a meeting with representatives of MEI, HONI, the OPA, the IESO and the OEB in June 2010 where such entities expressed a preference for certain transmission options, including a project identified as Option 1 which would be in close proximity to SWEC and PDNW. However, Option 1 was never presented to the public for the reasons stated above. HCHI is of the view that the GRWP discarded Option 1 with a variation to have the line located at approximately the mid-concession, as opposed to within the road allowance, provides a better solution than currently proposed.

The current proposals would result in 3 separate connection locations to the transmission grid and close to 30km of 230kV transmission system. A more coordinated approach would have a single connection location with approximately 22km of transmission line, albeit with two circuits on certain segments of the transmission line. HCHI fail to understand how an option that is preferred by all of the regulatory bodies and appears to provide a technically superior, less costly and less environmentally impactful infrastructure is not mandated or even fostered and encouraged by the regulatory regime.

Public Interest

Both SWEC and GRWP asserted a right to use the municipal right-of-way for the proposed transmission lines and both are asserting that they are exempt from the requirement to obtain a transmission license from the OEB. The Board's role in reviewing the route of a project is established by section 96 of the *Ontario Energy Board Act* and section 41 of the *Electricity Act*.³

Section 41 of the *Electricity Act* includes the following provisions:

³ *Electricity Act*, 1998, S.O. 1998, c.15, Schedule A.

41. (1) A transmitter or distributor may, over, under or on any public street or highway, construct or install such structures, equipment and other facilities as it considers necessary for the purpose of its transmission or distribution system, including poles and lines.

(9) The location of any structures, equipment or facilities constructed or installed under subsection (1) shall be agreed on by the transmitter or distributor and the owner of the street or highway, and in case of disagreement shall be determined by the Board.

(10) Subsection (9) does not apply if section 92 of the *Ontario Energy Board Act, 1998* applies.

The Board's jurisdiction to approve a location pursuant to the *Electricity Act* sub-section 41(9) is only restricted by the general purposes and objectives of the OEB. This is unlike the explicit restrictions in section 96 of the *Ontario Energy Board Act* which restrict the scope of the OEB's consideration of leave to construct transmission facilities. In EB-2011-0027 and EB-2011-0063 section 92 does apply and so the Board is called upon to determine extent and manner of its authority given the two statutory imperatives. The Board, arguably, does not have the same jurisdiction to determine the routing where leave to construct is sought as section 96 restricts the consideration of the Board to one of the enunciated criteria.

In the present proceedings EB-2011-0027 and EB-2011-0063, the proponents have applied for two routes. However, when viewed together, it appears that a more optimal solution is available but it appears that absent a Ministerial Directive the Board's authority is circumscribed such that achieving the optimal result may not be possible.

A second issue is whether such organizations should be licensed or regulated by the OEB as a transmitter rather than the current situation of being a generator that happens to own transmission and not subject to the same level of regulation by the OEB. Many entities are of the view that the absence of being a licensed transmitter removes any obligation to provide a connection point to a third party. This can hinder the development and expansion of the transmission and distribution system.

HCHI's distribution system requires additional transformer capacity to service the Dunnville area. The proposed GRWP transmission line is located in an area that could provide a solution to HCHI's need. However, in the present situation, if there is no obligation on the part of GRWP to connect HCHI then HCHI will be forced into a sub-optimal resolution.

These sections were included in the *Electricity Act* as part of the original restructuring of the electricity industry as part of Bill 35 in 1998. As you are aware, this pre-dates the shift to encourage generation and the widespread development of renewable generation

throughout the province so it unlikely the legislature anticipated that the existing situation would develop.

Concluding Comments

The rational, efficient expansion of the transmission system is integral to the economic well-being of Ontario. In considering the proximity of these projects a technically, financially and environmentally superior project could be developed and should be implemented. However, the various entities appear powerless to ensure such a solution is implemented.

The statutory objectives in the *Ontario Energy Board Act*, section 1, provide overarching considerations for the OEB in making decisions to ensure the public interest is fulfilled. These include the promotion of economic efficiency in generation and transmission of electricity and the use of renewable generation. However, it appears the OEB is unable to ensure the public interest will be best served in the absence of a direction from the Minister.

Therefore, HCHI ask the OEB to consider whether it could or should request the Minister to issue a directive, as permitted by the section 28.6 of the *Ontario Energy Board Act*, to empower the various agencies to develop a better solution for the connection of the PDNW, SWEC and GRWP.

Yours truly,

AIRD & BERLIS LLP



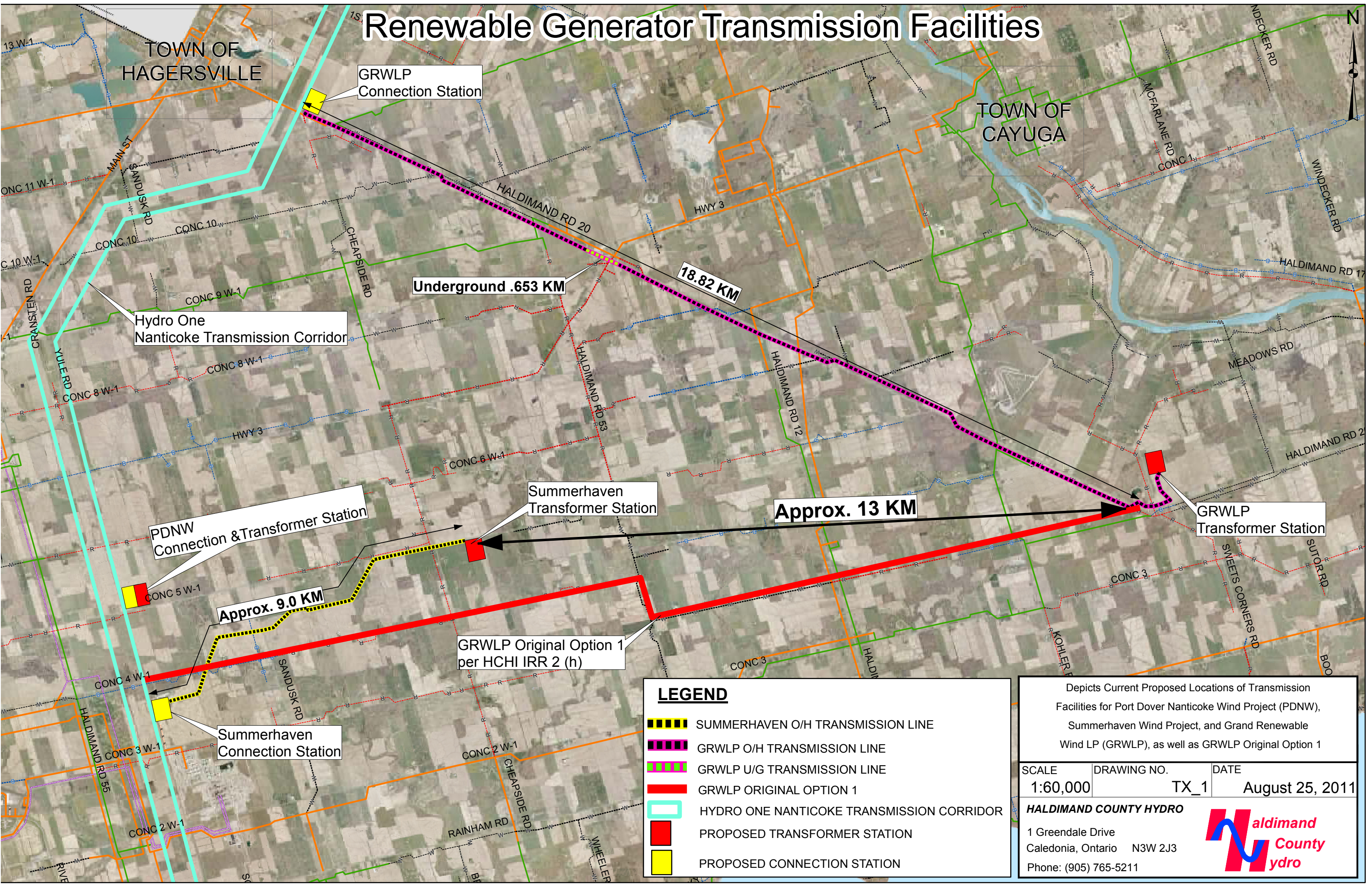
Scott A. Stoll

SAS/hm
Encl.

cc: Participants in EB-2011-0063
Participants in EB-2011-0027
Minister Duguid

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Renewable Generator Transmission Facilities



Interrogatory Responses #2

- A. Does the Applicant have any responsibility for coordination of transmission facilities with other wind generation proponents in order to ensure these are constructed in the most cost efficient manner from the perspective of costs absorbed by the transmission pool?

While the Applicant does not have a formal responsibility to coordinate construction of transmission facilities, the Applicant is always looking for ways to reduce costs and partner with other generators in the area. Based on the geographic location of the Project, it does not appear that coordination with other transmission facilities is possible. This position is supported by the IESO and Hydro One Networks Inc., neither of which has suggested joint facilities.

- B. Does the Applicant have any responsibility for coordination of transmission facilities with other wind generation proponents or transmitters (licensed or unlicensed) in order to ensure these are constructed with due regard to optimizing the reliability of the transmission network?

The Applicant is not responsible for optimizing the reliability of the transmission network, but relies on the IESO to carry out this task. The Applicant will meet all conditions established by the IESO and Hydro One in the SIA and the CIA respectively.

- C. Does the Applicant consider itself bound to connect third parties that request connection to the proposed transmission system? If not, why not? If the response depends upon whether the third party request is from a distributor, generator or transmitter, please provide a complete explanation for the different treatments.

Please see Board Staff IRR# 10 10(i) and 10 (iii). (See Appendix A)

- D. Which agency or corporate entity is most responsible for coordination of wind and other generation proponents to ensure that transmission facilities are planned and constructed in the most cost effective and reliable manner?

The Applicant does not believe that this question falls within the scope of this leave to construct hearing, however the applicant relies on a number of agencies in developing its Project including the Ontario Energy board, which administrative body relies on the IESO and Hydro One Networks Inc.

- E. What is the estimated cost of the transmission interconnection station and what portion of this estimate is expected to be contributed by the Applicant?

The Applicant does not have a current estimate of the total costs of the Interconnection Station. However, the applicant will be absorbing 100% of the costs of the Interconnection Station, as per the Transmission System Code.

- F. Has the Applicant considered the possibility of extending the Summerhaven transmission line as described in the Preamble above? If yes was this option discussed with Summerhaven, the IESO or Hydro One? If so what reasons were given for or against this alternative?

The Applicant does not have the legal right to extend the Summerhaven transmission line. Furthermore, Summerhaven and the Applicant are connecting to different circuits. These circuits were identified in their respective applications to the Feed-in-Tariff program and bind the Applicant and Summerhaven to these particular interconnection points.

- G. If the Applicant has not considered the possibility of extending the Summerhaven transmission line or has not discussed this possibility with the IESO or Hydro One why has this not occurred?

Please refer to HCHI IRR 2(f).

- H. Did the Applicant consider other alternatives to the currently proposed transmission project? Please describe each such alternative, why it was not chosen and whether such alternative would have provided improved reliability and quality of service for customers as compared to the current proposal in this Proceeding.

Route selection began by first establishing the end points. The end Point of Common Coupling (PCC) with the Ontario electricity grid was broadly established as a PCC to a 230 kV transmission circuit originating out of the Nanticoke GS, heading northward to Hagersville, east of Haldimand Rd 55, east of Highway 6 and east of Hagersville. The starting point of the Collector Substation was broadly defined as being located central to the wind and solar siting area and more specifically, close to the Solar Project at the intersection of Mt. Olivet Rd and Haldimand Rd 20. A meeting was held with the IESO, OPA, OEB, Hydro One and MEI in June 2010 and the IESO expressed a preference for the PCC to be made electrically to Circuit N5 of the transmission corridor originating from the Nanticoke GS and at a location that was farther, rather than closer to the Nanticoke GS for protection and control reasons.

Initially, 6 transmission line routes were identified for consideration. Originating at the Collector Substation near Mt Olivet Rd and Haldimand Rd 20, these routes were:

- Option 1: Concession 4 from Haldimand Road 20 to Haldimand Road 55 including a short section along Haldimand Rd 53;
- Option 2: Concession 4 from Haldimand Road 20 to Haldimand Road 53, northward along Haldimand Rd 53 and westward along Concession 7;
- Option 3: Haldimand Rd 20 to Concession 7, westward along Concession 7 to Haldimand Rd 55;
- Option 4: Haldimand Rd 20 to Concession 9, westward along Concession 9 to Haldimand Road 55;
- Option 5: Haldimand Rd 20 to the abandoned Railway corridor, just west of Nelles Corners, westward along the Railway corridor to Haldimand Rd 55;
- Option 6: Haldimand Road 20 from Mount Olivet Road to Hagersville.

At the June meeting of the Applicant, the IESO, OPA, OEB, Hydro One and MEI, all parties expressed a preference for Option 1, Option 4, and Option 6. Option 1 was replaced with Option 5 since it was preferred by the Applicant to remain clear of the NextEra and Capital Power wind generation projects, generally located in the land area south of Haldimand Road 20 and Concession 7. The initial six route options are shown on the Line Routes map attached hereto as **Schedule B**. In summary, Options 1 and 2 were ruled out to avoid conflict with the NextEra and Capital Power projects. Option 3 was also ruled out due to the close proximity to the other projects but also because the number of residents along Concession 7 and the continuous presence of 16kV Haldimand County Hydro overhead infrastructure. These criteria were considered to have a much lower impact on any of the other three remaining Option 4, 5, and 6.

The short-listed three route option (4,5, and 6) were presented to the public at the first GREP Public Meeting in July 2010. A feasibility study had been completed to examine the technology to be employed for the Transmission Line. Preliminary Transmission Line structure concepts were developed. The route selection criteria were also established. Considerations for a private right-of-way route option were explored at this time. The three line route options needed to be narrowed down to a preferred line route option.

Route selection criteria identified included:

- Safety
- Design Technology and Construction Requirements

- Land Ownership and Right of Way considerations
- Environmental Considerations
- Geotechnical Considerations
- Operations and Maintenance
- Time to Construct
- Cost

There is an interdependence of the selection criteria based on the technology used so it was important to determine whether the Transmission Line would be overhead on steel lattice structures or monopole structures vs underground buried cables. The study completed in July presented a comparison of overhead vs underground technology and these results are summarized in Table 1 attached hereto as Schedule C. The feasibility study assumed an ideal 20 km Transmission Line length and also assumed that land acquisition was not a constraint.

It was concluded that if the Transmission Line was to be overhead, it would be best if it followed the Haldimand Rd 20 line route Option 1 and/or Option 6. If the Transmission Line was to be underground, it would be best if the shortest line route was chosen or Option 6 to minimize cost impact to the Project.

Each of the three short-listed route Options were compared by the selection criteria. Issues that made the Applicant pass on Option 4 were failure to meet the CSA clearance requirements on the abandoned ROW. The width of the ROW was only 20 m and, in some areas, only 15 m. Hence, the line route failed the safety criteria for the portion of the route along the abandoned railway ROW.

In the case of Option 5, the same issue as Option 4 was present. The width of the existing Concession 9 ROW is 20 m. The Transmission Line design did not meet the clearances required under the governing CSA Standard and as a result, the line route option failed the safety criteria for the portion of the route along Concession 9.

The last remaining Option, 6, along Haldimand Rd 20, for its entire length, met the safety requirements except where the Transmission Line passes through Nelles Corners. In this case, the required clearances are not met and the Applicant has proposed to bury the Transmission Line in the ROW through Nelles Corners. An alternate route overhead was considered via Dry Lake Road and the abandoned Railway but in both cases the width of the existing ROW was only 20 m and the safety criteria was not met.

Appendix A

Response to Board Staff IRR# 10 (i) and 10(iii)

Please indicate whether the Applicant intends to apply for a transmission licence. If the answer is negative i.e., that the Applicant intends to apply for an exemption from obtaining a transmitter licence, please provide responses to the following:

- (i) On what basis can the Board ensure that the TSC provisions and obligations are binding on the Solar Project?

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.

Based on such exemption, the Applicant would not be subject to section 3.0.5 of the TSC and therefore the TSC would not be applicable as between the relationship between the Applicant and Grand Renewable Solar LP since the Applicant would not be a licensed transmitter.

As a private party connecting to the Facility, which is essentially a gen-tie or line tap, Grand Renewable Solar LP would not be subject to the TSC. Specifically, under the TSC, and subject to exceptions that are not applicable here, generators are required to construct their own connection facilities (see.s.6.3.3). This is what the Applicant is doing here.

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.

From a reliability perspective, the Board can rely on the requirements of the SIA and CIA to ensure that all reliability standards will be met, as well as the numerous codes and standards applicable to transmitters. As owner and operator of the Facility, the Applicant will be required to meet the criteria set out in the SIA and CIA, respectively. The SIA in particular references the relevant sections of the TSC that must be complied with in order for the Applicant to commission the Facility.

Furthermore, pursuant to the SIA, the registration of the generation facilities (i.e. the Solar Project and the Wind Project) will need to be completed through the IESO's Market Entry process, the connection applicant (i.e. in this case, the

Applicant) will be required to demonstrate to the IESO that all requirements identified in this SIA report have been satisfied.¹

- (iii) As a privately owned line, does GRW see the possibility that there may be requests for additional connections?

The Applicant does not anticipate that there will be requests for additional connections based on the fact that the geographic area surrounding the Facility will be substantially used by the Solar Project and the Wind Project. In particular, due to cumulative noise impacts, it would not be possible to build another wind farm under current regulations. A typical 10 MW solar farm only requires on average 100 acres to be developed, however any such farm would have to meet the current regulatory requirements for agricultural land.

Furthermore, the Transmission Line is 230 kV, which is only large enough to support the power derived from the Solar Project and the Wind Project.

In the event that requests were made in the future, the Applicant would consider such requests in the context of the regulatory environment at the time and the commercial terms being offered by the third party (for example, an agreement to cover the costs related to transmission infrastructure upgrades).

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¹ Final System Impact Assessment, dated May 5, 2011, at p. .