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BY E-MAIL ONLY

May 31, 2013

Kirsten Walli
Board Secretary

**Re: Application for Leave to Construct Transmission
Facilities by:**

- **Northland Power Solar Empire L.P.;**
- **Northland Power Solar Martin's Meadows L.P.;**
- **Northland Power Solar Abitibi L.P.; and**
- **Northland Power Solar Long Lake L.P.**

Application Board File Number EB-2013-0047

Please find attached Board staff's submission in the above proceeding.

Yours truly,

Nabih Mikhail
Project Advisor
Electricity Facilities and Infrastructure

Attachment

cc: Parties to EB-2013-0047 proceeding



BOARD STAFF SUBMISSION

**APPLICATION FOR LEAVE TO CONSTRUCT A
TRANSMISSION LINE AND RELATED FACILITIES
FOR:**

- **NORTHLAND POWER SOLAR EMPIRE L.P.**
- **NORTHLAND POWER SOLAR MARTIN'S
MEADOWS L.P.**
- **NORTHLAND POWER SOLAR ABITIBI L.P.**
- **NORTHLAND POWER SOLAR LONG LAKE L.P.**

EB-2013-0047

May 31, 2013

A. APPLICATION AND PROCEEDING

Northland Power Solar Empire L.P., Northland Power Solar Martin's Meadows L.P., Northland Power Solar Abitibi L.P., and Northland Power Solar Long Lake L.P. (collectively the "Applicants") have filed an application with the Board, dated February 12, 2013, under sections 92, 96(2), and 97 of the *Ontario Energy Board Act*, 1998, S.O. 1998, c.15, Schedule B. The Applicants have applied for an order of the Board granting leave to construct an electricity transmission line and related facilities which will connect four solar power generating facilities near the Town of Cochrane to the provincial transmission system. The Applicants are also seeking Board approval of the form of easement agreements that have been or will be offered to affected landowners. The Application has been assigned Board File No. EB-2013-0047.

The Applicants have entered into contracts with the Ontario Power Authority and are in the process of developing 40 MW of solar power generating facilities located in the vicinity of the Town of Cochrane

The Applicants have a co-ownership agreement in place for the transmission line and associated facilities. The work which is the subject of this application involves the construction of:

- The Main Transformer Substation;
- The Calder Transformer Substation;
- Approximately 22 kilometres of 115 kilovolt ("kV") above-ground Transmission Line, and 500 metres of underground transmission cable (Segment A and Segment B);
- A Transition Station;
- The Calder Switching Station ("Calder SS"); and
- An Interconnection Point to 115 kV circuit C2H owned by Hydro One Networks Inc. ("Hydro One")

(collectively, the "Transmission Facilities")

Ownership Structure of the Transmission Line and Related Facilities

The Applicants' Co-Ownership Structure¹ is displayed in an organization chart, depicting the various transmission system components and the corresponding ownership interest portions by each of the four Applicants. To illustrate the variety of ownership interest for the various transmission system elements, the following are examples:

- the Calder Transformer Substation and Segment B (500 metres) of the Transmission Line is wholly owned by one of the Applicants;
- the Main Transformer Substation is owned by the three other Applicants along with Segment A of the 115 kV Transmission Line – each of the three Applicants holding 1/3 interest; and
- all four Applicants co-owning the Calder Switching Station – each of the four Applicants holding ¼ interest.

Proceeding

The Board issued a Notice of Application and Written Hearing on March 7, 2013.

On April 8, 2013, the Board issued Procedural Order No. 1, outlining the scope of the Board's jurisdiction, granting the Applicant's request to afford certain information confidential status, and setting out a schedule for a round of interrogatories. The Board also granted an intervention request from the Independent Electricity System Operator ("IESO").

The Applicant responded to the interrogatories as directed in Procedural Order No.1

On May 23, 2013, the Board issued Procedural Order No. 2, allowing for Submissions by the IESO and Board staff, and Reply Response by the Applicants.

B. BOARD STAFF SUBMISSION

Board staff submits that the Applicants' pre-filed evidence and the answers received to all the interrogatories, except for a response to one interrogatory² as discussed below,

¹ Exh. B/Tab 1/ Sched. 2

² Applicants Response to Board staff interrogatory 2, Question (i)

clarifying key aspects of the Application, have shown that the construction of the transmission line is in the public interest.

As outlined in the Notice, the Board's consideration of the public interest in electricity leave to construct applications is defined by section 96(2) as:

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:

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.

B.1 Connection Agreement

Board staff has concerns relating to a potential gap in the requirements to meet certain technical and safety standards for all of the Transmission Facilities. The Transmission Facilities will connect to a Hydro One section of the IESO controlled grid through the Calder Switching Station, which is one part of the Transmission Facilities and will be owned by all four Applicants. In order to connect to the IESO controlled grid, the Applicants must enter into a Transmission Connection Agreement (the "Connection Agreement") with Hydro One. The standard Connection Agreement is an appendix to the Transmission System Code ("TSC").

The TSC applies to all licensed transmitters, including Hydro One. The TSC ensures, amongst other things, that transmission facilities meet certain technical and safety requirements. The Applicants, however, are exempt from the requirement to hold a licence, and as an unlicensed transmitter will not be directly covered by the TSC.

The TSC also applies, however, to all transactions and interactions between the licensed transmitter and its customers³. Section 3 of the Connection Agreement

³ TSC, section 3.0.5

further confirms that the TSC is incorporated by reference into the Connection Agreement, and that the Transmitter (in this case Hydro One) is bound by the TSC and that the Customer (though not formally bound by the TSC itself) acknowledges that the transmitter is bound by the TSC. The Customer is also bound, of course, by the Connection Agreement itself, which includes various requirements.

In an interrogatory response, the Applicants indicated that a single Connection Agreement will be concluded between the Applicants and Hydro One. Board Staff is concerned because it is not clear that the proposed Connection Agreement will cover all of the Transmission Facilities that comprise the project. In their response to staff interrogatory #2, the Applicants stated in part⁴ that:

(i) The Applicants will be connecting to C2H by way of Calder SS. Calder SS is jointly owned by the Applicants. Based on the foregoing, HONI has advised the Applicants as follows:

“Subject to there being no change in the ownership structure of Calder SS (and tap line) ... there would only be one (1) Connection Cost Recovery Agreement (“CCRA”) and one (1) Transmission Connection Agreement (“TCA”). The CCRA and TCA would be between Hydro One and Northland Power Solar Empire L.P., Northland Power Solar Martin’s Meadows L.P., and Northland Power Solar Abitibi L.P. and Northland Power Solar Long Lake L.P who would be collectively the “Customer” under the terms of both agreements and Hydro One would include terms in both the CCRA and the TCA similar to what is in the Multi-party CCEA regarding the joint and several liability of the parties that collectively comprise the Customer irrespective of the ownership of any of the other assets.”

It is not clear to Board staff if the Connection Agreement will cover all of the Transmission Assets, or simply the Calder Switching Station (which is the only asset specifically mentioned in the interrogatory response). As noted above, although all four Applicants will own the Calder Switching Station, some of the other Transmission

⁴ Ibid

Facilities will be owned by various combinations of the Applicants, or in some cases owned by only one of the Applicants.

If the Connection Agreement only encompasses the Calder Switching Station, then Board staff is concerned that there is a “gap”, and that the remainder of the Transmission Facilities will not be covered by either the Connection Agreement or, by reference, by the TSC. In the short term this would likely not be a great concern – the CIA and SIA for the project (discussed in further detail below) do not reveal any problems with the current configurations. In the future, however, it is possible that TSC standards may change. In such a scenario, it is not clear that the transmitter (Hydro One) would have the power to require upgrades to any Transmission Facilities that are not subject to the Connection Agreement.

A potential solution to this issue would be to specify in the Connection Agreement which Transmission Facilities are covered. Alternately, separate Connection Agreements could be entered into with the individual Applicants for the individual elements of the Transmission Facilities.

Board staff requests that the Applicants, in consultation with Hydro One as necessary, describe their understanding of which Transmission Facilities will be captured by the Connection Agreement in their reply argument. To the extent that not all of the Transmission Facilities are covered, Board staff asks that the Applicants discuss their views relating to staff’s concerns about the noted “gap”. Board staff recognizes that this issue is not unique to the current application, however, Board staff is of the view that the Board should address this matter in its decision for this application to ensure there is no confusion going forward.

B.2 Network System Upgrades and Impact of Project on Transmission Rate Payers

Board staff notes that the Applicants will pay for the total cost of the proposed 115 kV transmission lines, and related facilities⁵ including the Calder Switching Station to

⁵ Exh. B/Tab 4/Sch. 1

connect to the C2H circuit owned by Hydro One. According to the requirements set out in the IESO's SIA report⁶, Hydro One is expected to upgrade Circuits H6T and H7T to address overload on these two circuits. In response to a Board staff interrogatory⁷, the Applicants indicated that Hydro One intends to upgrade circuits H6T and H7T by September, 2014, being the solar projects in service date.

Board staff submits that circuits H6T and H7T are classed as Network Assets, and according to the Board's Transmission System Code⁸, the licensed transmitter, barring exceptional circumstances, would carry out necessary upgrades to Network Assets without any capital contribution by customers.

Board staff submits that any provincial transmission rate impact would likely be minor, and in any event the approach for transmission costing and pricing as it relates to this project is consistent with the Board's policy.

B.3 Impact of Project on Reliability and Quality of Electricity Service

Board staff notes that the revised connection configuration⁹ lead to a first re-evaluation of the System Impact Assessment ("SIA") Report by the IESO as well as the Customer Impact Assessment ("CIA") Report by Hydro One.

Board staff notes that the first revision of the SIA Report¹⁰ indicated that there are no material negative impacts on the transmission system reliability based on the System Impact Assessment ("SIA") Report by the IESO where on page 6 it stated in part that:

The proposed connection of Northland Power Solar Long Lake, Abitibi, Martin's Meadows and Empire, operating up to 40MW, subject to the requirements specified in this report, is expected to have no material adverse impact on the reliability of the integrated power system.

On May 20, 2013 a 2nd Addendum SIA report¹¹, dated May 20, 2013 was filed with the

⁶ Exh. H/Tab 1/Sch. 2 _System Impact Report (Addendum), Final Report, May 15, 2012/pages 1 and 2

⁷ Applicants Response to Board staff interrogatory 7, April 26, 2013

⁸ Transmission System Code, June 10, 2010, Section 6.3.5

⁹ Exh. B/Tab 1/Sch. 1/p.4/Parag. 13

¹⁰ System Impact Report (Addendum), May 15, 2012/p. 6 – Notification of Conditional Approval

¹¹ System Impact Assessment Report (2nd Addendum), May 20, 2013

Board on May 27, 2013. This report was initiated to evaluate the effect of combining the energy generated by the Martin's Meadows, Abitibi and Empire Generation Projects sites at the 27.6 kV bus of the Main TS, and to reduce the required step-up transformers from three to one as contemplated in the pre-filed evidence¹².

At page 1 of the (2nd Addendum) SIA report, it is indicated that the IESO and Hydro One have examined the proposed change and concluded that it is not materially different from the first Addendum's application data, as the equivalent impedance of the new transformer is similar to that of the three single transformers previously assessed. That 2nd Addendum SIA Report also indicated that the IESO recommends that a Notification of Conditional Approval for Connection be issued for the proposed connection of Northland Power Solar Long Lake, Abitibi, Martin's Meadows and Empire, operating up to 40MW, subject to implementation of the requirements outlined in the previous SIA reports.

Board staff is satisfied that with the 2nd Addendum SIA Report's conclusion that the project will have no material adverse impact on the reliability of the integrated power system

Board staff notes that according to the first revision of the CIA Report¹³ dated May 16, 2012, it is indicated that the proposed project will not have any adverse impact on the transmission system owned by Hydro One or on the transmission customers in the vicinity of the project. In that CIA Report¹⁴, it is stated in part that:

The Northland Power solar generating facility (Long Lake, Martins Meadows, Abitibi, and Empire solar farms) can be incorporated into the 115kV C2H transmission line.
Hydro One customers connected to this line will not be impacted by this proposed connection. Short circuit levels and voltage variations are within acceptable limits.

Board staff expects that Hydro One will confirm by filing a letter with the Board that the

¹² Exh. B/Tab 1/Sch. 1/pp. 3-4/Paragraphs 12 and 13

¹³ Customer Impact Assessment – Northland Power, Addendum #2, May 16, 2012

¹⁴ Ibid

noted proposed changes contemplated in the pre-filed evidence¹⁵, will have no negative impact on its transmission system or any customers connected in the vicinity of the proposed Calder SS.

B. 4 Outstanding Permits

Board staff notes that the evidence¹⁶ identified six crossing agreements, and a Road User's Agreement with the Town of Cochrane – all needed prior to construction start.

The Applicants in the response to a Board staff interrogatory¹⁷, indicated that the MTO Highway 668 (Encroachment Permit EC-2012-53C-20) was approved on December 16, 2012, and that progress is being made to conclude the other five crossing agreements. The Applicants also indicated that a revised draft of the Road User's Agreement was sent to the Town of Cochrane for review and approval on March 25, 2013.

Board staff submits that the update provided by the Applicants indicate that efforts are made to secure all outstanding Agreements prior to commencement of construction.

B. 5 Decommissioning Costs

The Applicants confirmed in its response to a Board staff interrogatory¹⁸ that they will be responsible for the decommissioning and removal costs of the transmission facilities in the event of unforeseen events such as inability to secure the various permits or due to a force majeure even though such an event. The Applicants further indicated that the pending Renewable Energy Approval ("REA") will also include a decommissioning requirement, as per the Decommissioning Plans that were prepared and submitted as part of the Applicants/REA submission.

The Applicants also indicated that no funds were set aside for this purpose, but that NPI has the financial means to remove and decommission the transmission facilities if this is required.

¹⁵ Exh. B/Tab 1/Sch. 1/pp. 3-4/Paragraphs 12 and 13

¹⁶ Exh. C/Tab 1/ Sch. 1/pp. 2-3

¹⁷ Applicants Response to Board staff interrogatory 3, April 26, 2013

¹⁸ Applicants Response to Board staff interrogatory 5, April 26, 2013

B.6 Land Rights and Easement Agreement

Board staff notes that the evidence¹⁹ indicated that approximately 22 km of the transmission line will be above ground, and that the Applicants (through NPI) currently hold options for all of the land rights required for the private properties where project components are to be located, except for the Calder SS. Negotiations are ongoing for privately owned land for the Calder SS.

In response to a Board staff interrogatory²⁰, the Applicants provided an update in regard to negotiations with the landowner for the Calder SS and stated that:

The negotiations with the landowner for the Calder SS have been finalized and NPI has an option to lease the property for the Calder SS, the transmission line from the Long Lake solar development, and the section of the underground cable. A lease was executed on March 6, 2013. An amendment changing the lease from the estate of the former owner of the property to the current owner was executed by NPI on April 10, 2013 and forwarded to the owner's solicitor for final signature on April 11, 2013. The form of lease is the same as that provided in Exhibit F, Tab 1, Schedule 2 of the Application.

Board staff is satisfied that all needed land rights and related agreements have been concluded with landowners.

B.7 Renewable Energy Approval ("REA") Process

Board staff sought an update on the status of the REA²¹, and the Applicants' response to a Board staff interrogatory²² indicated that due to various changes, an amended REA application was filed as the "Cochrane" REA on February 22, 2013, and that it was deemed complete on April 19, 2013. The Applicants also indicated that if the

¹⁹ Exh. F/tab 1/Sch. 1/pp. 1 - 4

²⁰ Applicants Response to Board staff interrogatory 4, Question (ii), April 26, 2013

²¹ Exh. C/Tab 1/Sch. 1/p. 2/ 1st paragraph

²² Applicants Response to Board staff interrogatory 8, April 26, 2013/

MOE does take the full 6 months to approve the REA application, the approval date will be August 15, 2013.

The Applicants also indicated that it would submit copies of the REA approvals upon receipt.

B. 8 Conclusion

Notwithstanding the concerns on whether all of the Transmission Facilities are covered by the connection agreement with Hydro as outlined earlier, it is Board staff's submission that the Applicants have shown that the transmission lines and related facilities meet the test articulated in section 96(2) of the Act. In particular that the construction of the transmission lines and related facilities are in the interests of consumers with respect to prices and the reliability and quality of electricity service, and is consistent with the promotion of the use of renewable energy sources in a manner consistent with the policies of the Government of Ontario.

All of which is respectfully submitted