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BY E-MAIL

December 4, 2014

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: Suncor Energy Products Inc. ("Suncor")
Application for Leave to Construct Transmission Facilities
Board File No.EB-2014-0022**

Pursuant to the hearing held on November 27, 2014, please find attached Board staff's submissions on the potential incremental costs and operational impacts to Hydro One Networks Inc.'s distribution infrastructure caused by Suncor's proposed transmission facilities.

Yours truly,

Original Signed By

Leila Azaïez
Case Manager

c. All Parties



Board Staff Submission

**Application for Leave to Construct
Transmission Line and Associated Facilities
EB-2014-0022**

December 4, 2014

THE APPLICATION

On January 21, 2014, Suncor Energy Products Inc. (“Suncor”) applied under sections 92, 96(2), 97 and 101 of the *Ontario Energy Board Act, 1998* (the “Act”) seeking an order of the Board for leave to construct new transmission infrastructure to connect Suncor’s wind generation project, the Cedar Point II Wind Energy Project, to the Independent Electricity System Operator (IESO) controlled grid at Jericho Wind Inc.’s interconnection point.

Suncor’s new transmission infrastructure will be located in Lambton County, and involves the construction of:

- A transformer station to collect the generated electricity and step-up the voltage of the 34.5 kV collector system to the 115 kV transmission line voltage. The transformer station will contain two transformers, each will have a nominal voltage rating of 115 kV/34.5 kV. The station will include other ancillary equipment (e.g. circuit breakers, buswork, outdoor switches, surge protectors, instrument transformers, protection and control equipment, and telecommunication equipment) and will have an area of approximately 23,600 square meters.
- An approximately 15 km single circuit 115 kV transmission line will run from the transformer station to a substation owned by Jericho Wind Inc.

The transformer station and transmission line will be referred to in this submission as the “Proposed Transmission Facilities”.

Suncor Energy Products Inc. is a corporation incorporated under the laws of Ontario and is a wholly-owned subsidiary of Suncor Energy Inc. The company is developing the 100 MW Cedar Point II Wind Energy Project pursuant to a Feed-in-Tariff (FIT) contract issued by the Ontario Power Authority in July 2011¹. The exclusive purpose of the Proposed Transmission Facilities is to transmit electricity to the IESO-controlled grid. Suncor is a licensed generator² in Ontario. Although the Proposed Transmission Facilities are for the transmission of electricity, Ontario Regulation 161/99 exempts Suncor from the requirement to obtain a licence to own or operate transmission facilities pursuant to Section 57(b) of the Act. Suncor’s distribution (i.e. collection) system will also be unlicensed. For the purposes of this proceeding, Suncor is a licensed generator and an unlicensed transmitter.

¹FIT Contract F-002175-WIN-130-601

² EG-2007-0015

The Board issued a Notice of Application on November 18, 2013, and the following parties were granted intervenor status: Hydro One Networks Inc. (“Hydro One” or HONI), the Independent Electricity System Operator, Lambton County and a local resident group, WAIT-PW. Hydro One noted in its intervention request that as a regulated distributor it may be affected by this Application.

The Board issued a number of procedural orders making provisions for the filing of interrogatories, responses to interrogatories, the filing and testing of intervenor evidence and argument. Board staff has reviewed the full record in developing its submissions.

ISSUE

Are the financial and operational impacts identified by Hydro One within the scope of the Board’s mandate in this proceeding?

BACKGROUND

Procedural Chronology Related to Matters Raised by Hydro One

On August 15, 2014, the Board issued Procedural Order No. 5 which made provision for the filing of written argument. On September 2, 2014, Hydro One filed argument which contained certain assertions related to supplemental distribution works and associated incremental costs that may arise from the construction of the Proposed Transmission Facilities. Hydro One included a description of work and approximate incremental costs³ that may result from Suncor’s transmission line. The Board considered Hydro One’s argument to be new evidence potentially determinative to its decision making.

On September 5, 2014, the Board issued Procedural Order No. 6 which specified dates for Hydro One to file evidence related to the work and incremental costs arising from the proposed Transmission Facilities, and for the submission of interrogatories and responses on this matter. Hydro One did not file any further technical or financial evidence, but provided the Board with additional submissions on September 10, 2014. In response to the Order, on September 17, 2014, Board staff filed interrogatories, and Hydro One submitted responses on September 24, 2014. In interrogatory responses, Hydro One reiterated that the Proposed Transmission Facilities would, or could result in prospective incremental distribution work and costs, and that the company needed certainty in the form of a signed agreement with Suncor in order to ensure that it would

³ At page 5

not be responsible for any applicable incidental costs. Hydro One's interrogatory response⁴ contained a copy of the draft Perpendicular Crossing Operation Agreement (the "Operational Agreement") including Schedule B, a Form of Emergency Services Agreement it is negotiating with Suncor.

By way of Procedural Order No. 7 the Board ordered that Suncor should have the opportunity to supplement its argument-in-chief and that Board staff and other parties should have an opportunity to file any further submissions they have on this subject.

On November 14, 2014, the Board issued Procedural Order No. 8 wherein it noted that the Board determined in EB-2011-0063 and EB-2011-0027 that impacts on existing distribution systems caused by transmission assets that relate to price, reliability and quality of service are considerations within the scope of section 92 applications. The Board set out dates for an oral hearing to hear from Hydro One's witnesses to ascertain the nature and magnitude of incremental costs and operational impacts on Hydro One's distribution system resulting from Suncor's proposed transmission infrastructure.

On November 27, 2014, the Board held an oral hearing. The scope of the hearing was limited to the examination of impacts on the existing infrastructure as opposed to impacts that may arise in relation to future distribution assets. The Board's examination fell into two broad categories, namely:

- The costs of reconfiguration, replacement or relocation of existing infrastructure caused by the construction and existence of the Proposed Transmission Facilities; and
- Costs related to the operational arrangements between Hydro One and Suncor that Hydro One argues are necessitated by the existence of the Proposed Transmission Facilities.

Hydro One's Position

At the hearing, as directed by the Board, Hydro One presented a panel of two witnesses which addressed incremental technical or operational activities and associated costs that may occur as a result of the energization of the Proposed Transmission Facilities. As well, Hydro One provided oral submissions. Hydro One noted that its oral submissions were partially made up its submissions of September 2, 2014⁵.

⁴ Response to Board staff interrogatory to Hydro One # 3

⁵Tr. Vol. 1, p. 88 (line 26)- p. 89 (line 2)

In Hydro One's September 2nd submission⁶, the company noted that:

As a distributor, Hydro One is obliged by the *Electricity Act, 1998*, to connect and serve customers in its service area, while meeting certain requirements respecting service quality, reliability and cost. Hydro One must meet these and other obligations even when its customers reside on the other side of the road, behind high-voltage transmission lines. The increasing need of electricity 'generator-transmitters' and distributors to share the same rights-of-way, therefore, also implies the need to share certain responsibilities and incremental costs fairly.⁷

In the same submission, Hydro One argued that Suncor's Proposed Transmission Line will result in a number of crossovers of Hydro One's distribution lines. In Hydro One's submission, the crossings give rise to a number of technical and operational issues that must be resolved before construction of the Proposed Transmission Facilities is allowed to commence. The technical and operational matters include such things as the establishment of protocols for emergency service coordination, response time for trouble calls, establishment of asset placement and clearance standards and general coordination of operations. On the matter of costs, Hydro One also submitted that the location of the line will impose present and potential costs on Hydro One's distribution customers that are located "behind" the proposed transmission line, as the new line will make it more difficult to access these customers. In that regard, Hydro One estimated six crossings would be affected and provided examples of the work and costs that would be imposed on its current and future distribution customers.

With respect to the operational matters cited above, Hydro One's witness explained the *raison-d'être* for each of these⁸ and highlighted why gaps in current policy can only be bridged by a bilateral agreement such as the proposed Operational Agreement so as to ensure that the utility and its customers are protected from an operational standpoint. The oral testimony echoed Hydro One's September 10th submission in which it stated that:

Unlike licensed distributors and licensed transmitters that normally have already-established communication channels and working relationships between or among them, the operational considerations need to be clearly defined and addressed between Hydro One (Distribution business) and Suncor (a generator-transmitter) to ensure safe, reliable and economic provision of customer service and supply, because there is no existing working relationship between the two entities.⁹

⁶Or Exhibit K3 of transcripts

⁷ At page 1 (line 13-18)

⁸ Tr. Vol. 1, p. 45 (line10) – p. 49 (line1)

⁹ At page 3

Hydro One further asserted in oral testimony that its operational protocols are governed by industry standards and by certain duties and responsibilities that are vested in it as a licensed and incumbent distributor in the area¹⁰.

During examination-in-chief, Hydro One's witness panel provided additional technical evidence and discussed various customer scenarios which would lead to incremental technical or operational activities and associated costs¹¹. Hydro One's testimony addressed two categories of costs, namely those impacting the utility and its ratepayers and others impacting individual connecting customers. Hydro One's witness explained the assumptions and demonstrated how each scenario at Exhibit K2 would play out, and addressed the probable technical and monetary consequences¹² of the various scenarios.

Hydro One suggested at the hearing that the correct lens to examine this matter is not whether or not Hydro One's distribution infrastructure is standing or future, but rather that the baseline should be the presence or absence of the Proposed Transmission Facilities, and the causality that exists between the existence of Suncor's facilities and the work that Hydro One is then obligated for reliability and quality of service reasons to undertake. On this matter the company said:

...whether the facilities at Hydro One or its customers are already existing or will be built during the next few years, whether it's an expansion, a new secondary or a new primary, and whether the facility exists now, or whether it will be built in the next ten years, they all meld together in that they are a direct consequence of Suncor's construction that would not have taken place but for the leave to construct that you are being asked to consider.¹³

While there was some uncertainty in the various submissions regarding the nature of the costs¹⁴, present versus potential, it was made clear during the hearing that although a scenario may arise or not, none of the costs discussed and presented at Exhibit K2 were hypothetical¹⁵. Hydro One further submitted that the potential financial impact on Hydro

¹⁰Tr. Vol. 1, p.36 (line 3-19) and p. 49 (line 2) – p.52 (line 3)

¹¹ Tr. Exhibit K2

¹² Tr. Vol. 1, p. 7 (line 12) - p.24 (line 21)

¹³ Tr. Vol. 1, p. 91 (line 28) – p.92(line 8)

¹⁴ Hydro One's submission of September 10, 2014 at p.1 "...the table of the incremental costs ("the table") provided in Hydro One's submission dated September 2, 2014 ("the submission"), is only for illustration purposes with respect to new transmission facilities to be built in the area where Hydro One's existing distribution facilities may be adversely affected due to the close proximity between the two facilities. The table is not meant to be specific to Suncor's proposed transmission facilities. The costs and events in the table are prospective and illustrative as they are not specific things that have taken place or that will take place in a particular location on a particular date."

¹⁵ Tr. Vol. 1, p.6 (line 18-24)

One and its connecting customers will only materialize if and when certain events take place that affect its existing infrastructure. Hydro One asserted it is not asking for any compensation or pre-payment at this stage¹⁶. Hydro One further submitted that the potential financial compensation that will serve to protect its ratepayers and its customers has been agreed to in principle by Suncor.

Hydro One reiterated the position it presented its September 2nd submission that it does not agree with Suncor's assertion that the Proposed Transmission Facilities will not affect the interests of consumers with respect to prices¹⁷.

Similarly, Hydro One submitted that its testimony showed that it needed to undertake certain works to maintain reliability and quality of service, and that those works are a direct consequence of the construction of Suncor's proposed transmission line.

Suncor's Position

In its submission of October 8, 2014, Suncor indicated that the only unresolved item in negotiations with Hydro One pertained to an indemnity clause in the Emergency Services Agreement ("EMS Agreement"). In a subsequent submission dated October 24, 2014, Suncor reiterated this concern and stated that the EMS Agreement "contains a blatantly unfair indemnity clause"¹⁸.

Moreover, Suncor argued that although the EMS Agreement was distinct in its content from the draft Operational Agreement, the design of the latter which contains the EMS Agreement as an appendix, had hindered negotiations, as section 7 of the Operational Agreement make it such that in order to be able to implement the Operational Agreement, Suncor must execute the EMS Agreement. In oral testimony, Hydro One confirmed that the two agreements are melded.¹⁹

In the same submission²⁰, Suncor confirmed that since all issues outside of the EMS Agreement had been settled, it was prepared to execute the Operational Agreement, providing it is amended to unbundle its signing from execution of the EMS Agreement. As for the EMS Agreement, Suncor submitted that if the indemnity clause were changed to reflect Suncor's concerns, it would be prepared to sign the agreement.

¹⁶ Tr. Vol. 1, p.90 (line 11-27)

¹⁷ Tr. Vol. 1, p.91 (line 5-14)

¹⁸ At page 4

¹⁹ Tr. Vol.1, p. 56 (line 22-28)

²⁰ At page 7

In Suncor's October 24th submission, the company clarified the respective functions of the Operational and EMS Agreement. Suncor characterized the Operational Agreement in the following way:

...sets out the relationship between Suncor and HONI as two independent entities that will own transmission and distribution assets in proximity to one another,[...], sets out Suncor's and HONI's rights and obligations with respect to the operational and financial matters regarding these respective assets on the defined lands, including construction of new lines, moving existing lines, putting overhead lines underground, access for maintenance, and detailed procedures to deal with emergencies.²¹

Distinctly, Suncor highlighted the more operational nature of the EMS Agreement and submitted that the EMS Agreement:

...provides **for Suncor to retain HONI, as an independent contractor** (not an agent) to, upon discovery, or being notified by a customer or a third party, that Suncor's assets require emergency remediation work, to notify Suncor by placing a telephone call to Suncor's Emergency Line, which shall be manned 24/7. After receiving such notification, Suncor's emergency personnel must arrive at the relevant site within 120 minutes of the receipt of the call. Meanwhile, HONI will, with its personnel, take whatever steps are necessary to render the area of the emergency safe, and not a hazard to the general public, including restricting public access to the immediate area and clearing roadways of debris. **The EMS Agreement also sets out the compensation to HONI for providing those services, both fees and recovery of expenses.** The EMS Agreement reflects the fact that given HONI Distribution's historical and current presence in rural Ontario, a third party (often a HONI Distribution customer) discovering, or affected by, an electrical emergency, would normally call HONI's call centre.²² [Emphasis added]

Hydro One provided in oral testimony confirmation of these protocols and the service quality and reliability drivers that underlie them.

²¹ At page 2

²² *ibid*

DISCUSSION AND SUBMISSION

Board staff's submissions will examine the financial and operational impacts identified by Hydro One and whether they relate to the price, quality and reliability of electricity service. Board staff also sets out its submission with respect to the regulatory considerations that arise in this type of scenario which involves an unlicensed transmitter and a licensed distributor.

Financial and Operational Impacts

In oral testimony the Board heard evidence on the necessity to have certain operational arrangements between Hydro One and Suncor as a result of the construction of the Proposed Transmission Facilities. The Board also heard evidence on various costs attached to potential scenarios that may not have been envisaged in the absence of the Proposed Transmission Facilities.

In Board staff's view the appropriate operational arrangements are included in the principal Operational Agreement, and the EMS Agreement. Suncor has stated in its submissions that Hydro One will oversee and will be compensated for those services. Board staff submits that there are no price impacts arising from the day-to-day additional operations that Hydro One may sustain.

Based on the evidence on the record Board staff notes that there are only limited direct incremental costs to Hydro One and those relate to one underground service and the operational service agreement between the two entities whereby Hydro One would take the trouble calls. The nature of these costs, in Board staff's submissions, is properly covered by Suncor and not the ratepayer.

As for potential future costs, Board staff submits that Hydro One's technical staff are best placed to know what the requirements of the distribution system are and what contingencies must be in place to ensure the levels of quality of service and reliability that its conditions of licence prescribe. Board staff submits that the scenarios discussed in Hydro One's September 2nd submission and augmented by additional scenarios during oral testimony are plausible, though the timing and probability of occurrence is unclear. Board staff further submits operational duties laid out in the Distribution System Code and other industry practices that govern and guide Hydro One's business may result in additional expenditures to the distributor. Board staff submits that there may be price

impacts caused by the construction of the Proposed Transmission Facilities, however it is unclear whether and when these will occur.

Regulatory Considerations

Throughout the various submissions, a recurrent theme has been the nature of the relationship that binds Suncor and Hydro One, and the various duties and responsibilities that each entity must keep as players in the electricity grid. As noted earlier, Suncor is a licensed generator and an unlicensed transmitter. Hydro One is the licensed distributor in the service area where Suncor proposes to locate its transmission infrastructure.

The Transmission System Code (“TSC”) defines an unlicensed transmitter as follows:

2.0.66 “unlicensed transmitter” means a person who owns or operates a transmission system and that is exempt from the requirement to hold a licence under section 57(b) of the Act by virtue of a regulation made under the Act or of the application of section 84 of the Act.

Board staff notes that although one of the stated purposes of the TSC is to set out “the rules governing the economic evaluation of transmission system connections and expansions” and “the minimum standards for facilities connected to a transmission system”²³, these rules clearly apply to licensed transmitters, rather than unlicensed ones. In fact, on the general applicability of the code, the TSC says:

3.0.5 Except to the extent provided in a transmitter's licence, another code issued by the Board or an order of the Board, this Code applies to all licensed transmitters and to all transactions and interactions between a licensed transmitter and its customers and between a licensed transmitter and its neighbouring Ontario transmitters.

Board staff notes that Suncor’s relationship as an unlicensed transmitter with Hydro One as the local distributor is not covered by paragraph 3.0.5 of the TSC. Further, Board staff submits that there are no specific elements or prescriptions in the TSC that relate to the economics (including any compensation to a third party), or technical standards that Suncor must meet as the owner of transmission assets.

Board staff observes that the issue of construction of transmission assets in proximity to distribution assets has come up in various past proceedings, including: EB-2011-0027, EB-2011-0063, EB-2012-0442, EB-2013-0040/EB-2013-0041 and EB-2013-0203.

²³ TSC para. 1.0.1 (d) and (e)

However, the issue of construction of transmission or distribution assets in proximity to another is only addressed in the TSC in the context of transmission assets in proximity to other transmission assets and in the Distribution System Code (DSC) similarly in the context of distribution assets in proximity to other distribution assets. The only neighboring configurations discussed are like for like, for example, the TSC defines neighboring transmission as:

2.0.44 “neighbouring Ontario transmitter” in relation to a licensed transmitter (the “first transmitter”) means another licensed transmitter whose transmission system is located in Ontario and is connected to that of the first transmitter or that seeks to have its transmission system located in Ontario connected to that of the first transmitter, as the context requires.

Respecting responsibilities to other distributors, the DSC provides for example that:

6.3.4 A distributor shall not build any part of its distribution system in another distributor’s licensed service area except under the following conditions:

- The part of the distribution system that is to be located inside another licensed service area is dedicated to the delivery of electricity to the distributor who owns the distribution facilities; and
- There is no apparent opportunity for both distributors to share the distribution facilities; and
- **The distributor in whose service area the distribution facilities are to be located determines that the presence of the distribution facilities in that location does not impinge on its distribution operations.** [Emphasis Added]

With respect to renewable generation connections, much work has been undertaken by the Board to determine cost responsibilities in the context of connecting to the system. Board staff notes that the parallel does not exist in the context of cost sharing in the case of impacts on proximate assets. With respect to the various scenarios described by Hydro One, the time horizon for the financial impacts and the probability that the events would occur is still unclear. Board staff submits that further policy research and/or peer review should be undertaken before deciding whether the financial implications that Hydro One has described in the various scenarios should be validated by the Board.

Board staff submits that although there may be gaps in the current codes, the principles contained in the TSC and DSC that relate to quality of service and reliability are valid even when a market player is unlicensed. However, Board staff submits that the jurisdictional onus being on the licensed entity, it may require further assurances and/or approvals from the Board to establish similar protocols as the ones generically established by the codes.

With respect to operational consequences of connecting generation to, rather than in proximity, Board staff notes that there are rules that are contained in the Distribution System Code (DSC) that speak to the operational duties of Hydro One as the licensed incumbent distributor in the area that may be of interest in this context. In particular, section 6.0 on technical requirements stipulates:

6.2.25 A **distributor shall ensure that the safety, reliability and efficiency of the distribution system is not materially adversely affected by** the connection of a generation facility to the distribution system. A distributor shall require that new or significantly modified generation facilities meet the technical requirements specified in Appendix F.2.

6.2.26 A **distributor shall ensure that the distribution system is adequately protected from potential damage or increased operating costs resulting from** the connection of a generation facility. Despite section 2.2.1, if damage to the distribution system or increased operating costs result from the connection of a generation facility other than a micro-embedded generation facility, the distributor shall be reimbursed for these costs by the generator. [Emphasis added.]

In relation to emergency conditions, the DSC for example says:

4.5.6 A distributor shall develop and maintain appropriate emergency plans in accordance with the requirements of the Minister of Energy, Science and Technology and in the Market Rules, regardless of whether the distributor is a wholesale market participant. A distributor's emergency plan shall include, at a minimum, mutual assistance plans with neighbouring distributors or other measures to respond to a wide-spread emergency.

Board staff submits that the lack of relational certainty between the various market actors constructing assets in proximity to each other should not become a barrier to the development and promotion of large renewable projects in the province. Fair access to transmission corridors is clearly at issue. Clearer direction from the Board to incumbent distributors or transmitters in generic fashion and to Hydro One in this case, should help remove that barrier. The Board may require a generic draft form of operational agreement be filed in such cases.

All of which is respectfully submitted.

