

Hydro One Networks Inc.

7th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5240
Fax: (416) 345-5866
Oded.Hubert@HydroOne.com

Oded N. Hubert

Director, Regulatory Compliance
Regulatory Affairs



BY EMAIL

January 30, 2014

Sheri Young
Secretary of the Board
National Energy Board of Canada
444 Seventh Avenue SW
Calgary, Alberta
M4P 1E4

Dear Ms. Young:

Hydro One Networks Inc. – Annual Filing for the National Energy Board General Order MO-036-2012, Amending Order AO-004-EPE-113 and Amending Order AO-005-EPE-59

Hydro One Networks Inc. (“Hydro One”) is the holder of a number of National Energy Board (“NEB” or the “Board”) International Power Line Certificates and Permits. As required by section 7 of the NEB General Order MO-036-2012, Amending Order AO-004-EPE-113 and Amending Order AO-005-EPE-59 (collectively the “Reliability Standards Orders”), issued by the Board on December 6, 2012, Hydro One is submitting a report that contains a detailed description of reliability standards that were adopted, approved, established or developed after the Reliability Standards Orders were made.

In addition, pursuant to section 4 of the Reliability Standards Orders, Hydro One is requesting the Board to exempt Hydro One from compliance with one reliability standard that became effective on October 1, 2013.

Sincerely,

ORIGINAL SIGNED BY CAROLYN RUSSELL ON BEHALF OF ODED HUBERT

Oded Hubert

cc. Jessica Savage, Manager, Government and Regulatory Affairs, IESO

Attach.

HYDRO ONE NETWORKS INC.

RELIABILITY STANDARDS REPORT AND EXEMPTION REQUEST

JANUARY 30, 2014

1. **Background**

Hydro One Networks Inc. (“**Hydro One**”) is the holder of a number of National Energy Board (“**NEB**” or the “**Board**”) International Power Line (“**IPL**”) Certificates and Permits. Table 1 below contains a list of NEB Certificates and Permits included in General Order MO-036-2012, Amending Order AO-004-EPE-113 and Amending Order AO-005-EPE-59 issued by the NEB on December 6, 2012 (collectively, the “**Reliability Standards Orders**”).

Table 1 - NEB Certificates and Permits listed in the Reliability Standards Orders

| Province | Owner/Operator | Certificate/Permit No. |
|-----------------|-------------------------|-------------------------------|
| Ontario | Hydro One Networks Inc. | EC-III-6 |
| Ontario | Hydro One Networks Inc. | EC-III-13 |
| Ontario | Hydro One Networks Inc. | EC-III-20 |
| Ontario | Hydro One Networks Inc. | EC-18 |
| Ontario | Hydro One Networks Inc. | EC-11 |
| Ontario | Hydro One Networks Inc. | EC-13 |
| Ontario | Hydro One Networks Inc. | EC-12 |
| Ontario | Hydro One Networks Inc. | EC-16 |
| Ontario | Hydro One Networks Inc. | EC-14 |
| Ontario | Hydro One Networks Inc. | EC-15 |
| Ontario | Hydro One Networks Inc. | EC-17 |
| Ontario | Hydro One Networks Inc. | EC-17 |
| Ontario | Hydro One Networks Inc. | EPE-59 |
| Ontario | Hydro One Networks Inc. | EPE-113 |

Hydro One is obligated under its Ontario Energy Board (“**OEB**”) transmission licence to comply with the IESO Market Rules. Pursuant to Chapter 5 (Power System Reliability) of the Market Rules, Hydro One is required to carry out its obligations under this chapter in accordance with all applicable reliability standards¹. As such, Hydro One is required to comply with the reliability standards established by NERC and the Northeast Power Coordinating Council (“**NPCC**”). Unless the OEB initiates a review, NERC standards are in force in Ontario when the reliability standards are declared in force in the United States (as opposed to when they are established, developed or adopted by NERC) or, for NPCC reliability criteria, when declared in force by NPCC. Hydro One therefore complies with all standards and obligations on the date that they

¹ See Section 3.4.2 of Chapter 5 of the Market Rules and definitions of "reliability standards" and "standards authority" in Chapter 11 of the Market Rules.

become enforceable in the US, subject to the necessary approvals² and any implementation plans issued by standards authorities with respect to those standards and obligations.

Hydro One has registered with the North American Reliability Corporation (“NERC”) as Transmission Owner (“TO”), Transmission Operator (“TOP”), Transmission Planner (“TP”), Load Serving Entity (“LSE”) and Distribution Provider (“DP”). Note that, as both of the Independent Electricity System Operator (“IESO”) and Hydro One are registered as TOP and TP, they share compliance responsibilities for certain standards within the reliability standards and compliance framework in the Province of Ontario.

2. Reliability Standards Adopted, Approved, Established Or Developed After Reliability Standards Orders Were Made

In accordance with Section 7 of the Reliability Standards Orders, the only reliability standard adopted, approved, established or developed after these Orders were made, with which the holder is obligated to comply is NERC’s Reliability Standard PRC-006-1 “Automatic under Frequency Load Shedding” (“**PRC-006-1**”).

3. Exemption Request

Pursuant to Section 4(1)(a) of each of the Reliability Standards Orders, the Board may exempt holders of a certificate or a permit from compliance with a reliability standard or any other related obligation under those Reliability Standards Orders if the Board is satisfied that:

(a) the reliability standard or any related obligation does not properly apply to the international power line for which the certificate or permit was issued;

As set out above, the purpose of PRC-006-1 is to establish design and documentation requirements for automatic underfrequency load shedding programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures.

This standard falls under the “Exemption Type C” category, as defined in Section 3.3 of Hydro One’s March 6, 2013 submission (Reliability Standards Declaration and Exemption Request) to the NEB (the “**Hydro One Reliability Standards Original Submission**”). This group of standards addresses specific technical facilities and equipment that, depending on the location, could impact IPLs. However, their use in the Ontario system is not intended to affect (or be affected by) the operation of IPLs. These standards typically address Under-frequency and Under-voltage Load shedding schemes. Under-frequency Load Shedding in Ontario is used at

² See Sections 1.2.6, 1.2.6.1, 1.2.6.2 and 1.2.7 of Chapter 5 of the Market Rules.

facilities that supply specific loads in the system. Under-voltage Load Shedding schemes are used only for local purposes that are not part of the Bulk Electric System. Therefore, they would generally apply to IPLs but do not apply in the Province of Ontario for technical reasons.

PRC-006-1 became enforceable on October 1, 2013 and it replaced PRC-007-0 and PRC-009-0. Note that, in its November 13, 2013 letter to Hydro One, the Board had exempted Hydro One from compliance with reliability standards listed in Exemption Types A, B, C and D. Both PRC-007-0 and PRC-009-0 fall under the “Exemption Type C” category.

As such, Hydro One requests that the Board exempt Hydro One from compliance with the obligations under the Reliability Standards Orders that pertain to NERC Reliability Standard PRC-006-1.

4. Additional Information

In Table 2 (attached), Hydro One has provided an updated list (as of January 30, 2014) of the NERC and NPCC reliability standards applicable to Hydro One’s IPLs and to which Hydro One adheres, from the list that is set out in the Hydro One Reliability Standards Original Submission, which identifies version changes to those standards and when the revised versions became enforceable in Ontario. Table 2 also identifies the standard that was retired on March 31, 2013.

**Table 2 - Applicability of Mandatory Reliability Standards (as of Jan 30, 2014) to International Power Lines
Version Changes and Retirement**

| Std. Group | Std. Number | Standard Document Title | Comment | Responsible Entity for TOP compliance wrt IPLs | Notes on revision |
|-----------------------|---------------------|--|---|--|--|
| NERC Standards | | | | | |
| FAC | FAC-001-1 | Facility Connection Requirements | Full compliance responsibility with TO and TOP requirements for IPLs lies with Hydro One | Hydro One | Version of this standard changed to Version 1 (from FAC-001-0) and became enforceable in Ontario on Nov 25, 2013 |
| PER | PER-002-0 | Operating Personnel Training | Full compliance responsibility with TO and TOP requirements for IPLs lies with Hydro One | Hydro One | This standard was retired on March 31, 2013, as PER-005-1 R3 (which covers PER-002-0 R4) became enforceable on the same date. |
| PRC | PRC-004-2.1a | Analysis and Mitigation of Transmission and Generation Protection System Misoperations | Full compliance responsibility with TO and TOP requirements for IPLs lies with Hydro One | Hydro One | Version of this standard changed to V2.1a (from PRC-004-2a) which became enforceable in Ontario on Nov 25, 2013 |
| | PRC-005-1.1b | Transmission and Generation Protection System Maintenance and Testing | Full compliance responsibility with TO and TOP requirements for IPLs lies with Hydro One | Hydro One | Version of this standard changed to V1.1b (from PRC-005-1b) which became enforceable in Ontario on Nov 25, 2013 |
| TPL | TPL-003-0b | System Performance Following Loss of Two or More Bulk Electric System Elements (Category C) | IESO and Hydro One share compliance responsibility for TP applicable requirements | Both | Version of this standard changed to Version 0b (from TPL-003-0a) which became enforceable in Ontario on Aug 15, 2013 |
| | TPL-004-0a | System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D) | IESO and Hydro One share compliance responsibility for TP applicable requirements | Both | Version of this standard changed to Version 0a (from TPL-004-0) which became enforceable in Ontario on Aug 15, 2013 |