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BY MAIL & E-MAIL

January 27, 2017

Secretary of the Board
National Energy Board of Canada
517 TenthAvenue SW
Calgary, Alberta
T2R 0A8

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 ("**IPL**") 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 describing any reliability standards that were adopted, approved, established or developed after the Reliability Standards Orders were made.

Pursuant to Section 4 of the Reliability Standards Orders, Hydro One requests the Board to exempt Hydro One from compliance with four reliability standards that came into effect in Ontario in 2016. Hydro One would also like to rescind the request made in its 2016 Annual Filing, issued on January 29, 2016, to the Board for a compliance exemption with NERC reliability standard MOD-032-1. This standard is applicable to IPLs and certain compliance responsibilities do lie with Hydro One. Please refer to the report for additional details.

Sincerely,

ORIGINAL SIGNED BY HENRY ANDRE ON BEHALF OF ODED HUBERT

Oded Hubert

C: Adrian Pye, Acting Manager, Regulatory Affairs, Independent Electricity System Operator

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 standards[1]. As such, Hydro One is required to comply with the reliability standards established by the North American Reliability Corporation ("**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

[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.

standards and obligations on the date that they become enforceable in the US, subject to the necessary approvals[2] and any implementation plans issued by standards authorities with respect to those standards and obligations.

Hydro One has registered with the NERC as Transmission Owner ("**TO**"), Transmission Operator ("**TOP**"), Transmission Planner ("**TP**") and Distribution Provider ("**DP**"). The Independent Electricity System Operator ("**IESO**"), pursuant to its obligation under the Market Rules (Chapter 5, Section 3.2.5) identifies market participants and associated facilities that are subject to compliance with NERC Reliability Standards and NPCC criteria based on the applicability criteria set out in Market Manual 11: Part 11.1: Applicability Criteria for Compliance with NERC Reliability Standards and NPCC Criteria. Under this framework, Hydro One has been assigned responsibility for compliance with reliability standards that apply to a TO and has been assigned or shares compliance responsibilities with the IESO for certain reliability standards that apply to a TOP. Note that in Ontario, the IESO is registered as the official TOP and TP under the Memorandum of Understanding between the IESO, NERC and NPCC.

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 following reliability standards were adopted, approved, established or developed after the Reliability Standards Orders were made and subsequent to our last report to the NEB on January 30, 2016:

- NERC Reliability Standard CIP-010-2 – Cyber Security - Configuration Change Management and Vulnerability Assessments ("**CIP-010-2**") [Note: Reliability Standard CIP-010-1 never came into force in Ontario and was superseded by CIP-010-2, which became enforceable in Ontario on July 1, 2016]

- NERC Reliability Standard CIP-011-2 – Cyber Security - Information Protection ("**CIP-011-2**") [Note: Reliability Standard CIP-011-1 never came into force in Ontario and was superseded by CIP-011-2, which became enforceable in Ontario on July 1, 2016]

- NERC Reliability Standard MOD-025-2 – Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability ("**MOD-025-2**") [Note: Reliability Standard MOD-025-1 never came into force in Ontario and was superseded by MOD-025-2, which became enforceable in Ontario on July 1, 2016]

[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.

- NERC Reliability Standard MOD-031-2 – Demand and Energy Data ("**MOD-031-2**") [Note: Reliability Standard MOD-031-1 became enforceable in Ontario on July 1, 2016. MOD-031-1 was retired on October 1, 2016 and replaced by MOD-031-2]

- NERC's Reliability Standard PRC-019-2 - Coordination of Generating Unit or Plant Capabilities, Voltage ("**PRC-019-2**") [Note: Reliability Standard PRC-019-1 never came into force in Ontario and was superseded by PRC-019-2, which became enforceable in Ontario on July 1, 2016]

- NERC's Reliability Standard PRC-024-2 - Generator Frequency and Voltage Protective Relay Settings ("**PRC-024-2**") [Note: Reliability Standard PRC-024-1 never came into force in Ontario and was superseded by PRC-024-2, which became enforceable in Ontario on July 1, 2016]

3. Exemption Request

Pursuant to Section 4(1) 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;

(b) an entity, other than the holder of a certificate, is responsible under the laws of a province for operating or maintaining the international power line for which the certificate was issued in compliance with that reliability standard or obligation instead of the holder of the certificate.

3.1 Reliability Standards Adopted and Approved in 2017

Hydro One is requesting the Board to exempt Hydro One from compliance with the following reliability standards that became enforceable in Ontario in 2016:

1) MOD-025-2

The purpose of MOD-025-2 is to ensure that accurate information on generator gross and net Real and Reactive Power capability and synchronous condenser Reactive Power capability is available for planning models used to assess Bulk Electric System (BES) reliability. MOD-

025-2 became enforceable in Ontario on July 1, 2016.

This standard falls under the category of "Exemption Type A: Standards that do not apply to IPLs owned by Hydro One and operated in the Province of Ontario." This is defined in Section 3.1 of Hydro One's March 6, 2013 submission (Reliability Standards Declaration and Exemption Request) to the NEB (the "**Original Reliability Standards Submission**").

2) MOD-031-2

The purpose of MOD-031-2 is to provide authority for applicable entities to collect Demand, energy and related data to support reliability studies and assessments and to enumerate the responsibilities and obligations of requestors and respondents of that data. MOD-031-2 became enforceable in Ontario on October 1, 2016.

This standard falls under the category of "Exemption Type A: Standards that do not apply to IPLs." This is defined in Section 3.1 of Hydro One's Original Reliability Standards Submission.

3) PRC-019-2

The purpose of PRC-019-2 is to verify coordination of generating unit facility or synchronous condenser voltage regulating controls, limit functions, equipment capabilities and Protection System settings. PRC-019-2 became enforceable in Ontario on July 1, 2016.

This standard falls under the category of "Exemption Type A: Standards that do not apply to IPLs." This is defined in Section 3.1 of Hydro One's Original Reliability Standards Submission.

4) PRC-024-2

The purpose of PRC-024-2 is to Ensure Generator Owners set their generator protective relays such that generating units remain connected during defined frequency and voltage excursions. PRC-024-2 became enforceable in Ontario on July 1, 2016.

This standard falls under the category of "Exemption Type A: Standards that do not apply to IPLs." This is defined in Section 3.1 of Hydro One's Original Reliability Standards Submission.

In its November 13, 2013 letter to Hydro One, the Board indicated that it was satisfied that the requirements in Section 4 of the Reliability Standards Orders were met for the standards listed

under Exemption Types A, B, C and D and exempted Hydro One from compliance with these standards. MOD-025-2, MOD-031-2, PRC-019-2 and PRC-024-2 fall under the "Exemption Type A" category.

3.2 Rescindment of the Exemption Request in Hydro One's 2016 Annual Filing Submission for MOD-032-1

In Hydro One's January 29, 2016 annual filing submission to the Board, Hydro One requested an exemption from compliance with NERC Reliability Standard MOD-032-1. Hydro One stated that MOD-032-1 fell under the category of "Exemption Type A: Standards that do not apply to IPLs," as defined in Section 3.1 of Hydro One's Original Reliability Standards Submission.

In fact, MOD-032-1 is applicable to IPLs and Hydro One has certain compliance responsibilities with this standard as a Transmission Owner. The purpose of MOD-032-1, which became enforceable in Ontario on July 1, 2015, is to establish consistent modeling data requirements and reporting procedures for development of planning horizon cases necessary to support analysis of the reliability of the interconnected transmission system. Therefore, Hydro One is rescinding its request to the Board for an exemption from compliance with MOD-032-1.

4. Additional Information

To further inform the Board, in Table 2.1 below, Hydro One provides an updated list of changes (as of January 30, 2017) to NERC and NPCC reliability standards applicable to Hydro One's IPLs and to which Hydro One adheres. Table 2.1 identifies version changes (between January 31, 2016 and January 30, 2017) to those standards and when the revised versions became enforceable in Ontario. Table 2.1 also identifies any standards that were retired since January 30, 2016.

Table 2.1 - Version Changes and Retirement (between January 31, 2016 and January 30, 2017) of Mandatory Reliability Standards Applicable to International Power Lines

Standard Group	Standard Number	Standard Document Title	Notes on revision
NERC Standards			
CIP	CIP-002-5.1	Cyber Security — BES Cyber System Categorization	The standard was revised to Version 5 (from CIP-002-3) which became enforceable in Ontario on July 1, 2016. Title of the standard changed from "Cyber Security - Critical Cyber Asset Identification" to "Cyber Security — BES Cyber System Categorization". Version 4 of CIP-002 never came into effect in Ontario.
CIP	CIP-003-6	Cyber Security — Security Management Controls	The standard was revised to Version 6 (from CIP-003-3) which became enforceable in Ontario on July 1, 2016. Version 4 and 5 of CIP-003 never came into effect in Ontario.
CIP	CIP-004-6	Cyber Security — Personnel & Training	The standard was revised to Version 6 (from CIP-004-3) which became enforceable in Ontario on July 1, 2016. Version 4 and 5 of CIP-004 never came into effect in Ontario.
CIP	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	The standard was revised to Version 5 (from CIP-005-3) which became enforceable in Ontario on July 1, 2016. Version 4 of CIP-004 never came into effect in Ontario.
CIP	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	The standard was revised to Version 6 (from CIP-006-3) which became enforceable in Ontario on July 1, 2016. Title of the standard changed from "Cyber Security — Physical Security of Critical Cyber Assets" to "Cyber Security — Physical Security of BES Cyber Systems". Version 4 and 5 of CIP-006 never came into effect in Ontario.
CIP	CIP-007-6	Cyber Security — Systems Security Management	The standard was revised to Version 6 (from CIP-007-3) which became enforceable in Ontario on July 1, 2016. Version 4 and 5 of CIP-007 never came into effect in Ontario.
CIP	CIP-008-5	Cyber Security — Incident Reporting and Response Planning	The standard was revised to Version 5 (from CIP-008-3) which became enforceable in Ontario on July 1, 2016. Version 4 of CIP-008 never came into effect in Ontario.
CIP	CIP-009-6	Cyber Security — Recovery Plans for BES Cyber Systems	The standard was revised to Version 6 (from CIP-009-3) which became enforceable in Ontario on July 1, 2016. Title of the standard changed from "Cyber Security - Recovery Plans for Critical Cyber Assets" to "Cyber Security — Recovery Plans for BES Cyber Systems". Version 4 and 5 of CIP-009 never came into effect in Ontario.
COM	COM-002-4	Operating Personnel Communications Protocols	The standard was revised to Version 4 (from COM-002-2) which became enforceable in Ontario on July 1, 2016. Title of the standard changed from "Communications and Coordination" to "Operating Personnel Communications Protocols". Version 3 of COM-002 never came into effect in Ontario.
FAC	FAC-003-4	Transmission Vegetation Management	The standard was revised to Version 4 (from FAC-003-3) which became enforceable in Ontario on October 1, 2016.

MOD	MOD-010-0	Steady-State Data for Transmission System Modeling and Simulation	The standard was retired on July 1, 2016.
MOD	MOD-012-0	Dynamics Data for Transmission System Modeling and Simulation	The standard was retired on July 1, 2016.
PER	PER-005-2	Operations Personnel Training	The standard was revised to Version 2 (from PER-005-1) which became enforceable in Ontario on October 1, 2016.
PRC	PRC-002-2	Disturbance Monitoring and Reporting Requirements	The standard was revised to Version 2 (from PRC-002-1) which became enforceable in Ontario on July 1, 2016. Version 1 of PRC-002 never came into effect in Ontario. PRC-002-2 effectively replaced and resulted in retirement of Regional Reliability Standard PRC-002-NPCC-1.
PRC	PRC-004-4(i)	Protection System Misoperation Identification and Correction	The standard was revised to Version 4(i) (from PRC-004-2.1) which became enforceable in Ontario on July 1, 2016. Version 3 of PRC-004 never came into effect in Ontario.
TOP	TOP-003-3	Operational Reliability Data	The standard was revised to Version 3 (from TOP-003-1) which became enforceable in Ontario on January 1, 2017. Version 2 of TOP-003 never came into effect in Ontario.