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**David Curtis**

Director - Transmission Regulation  
Regulatory Affairs

**VIA COURIER and ERF SUBMISSION**

April 23, 2004

Mr. Peter O'Dell,  
Acting Board Secretary,  
Ontario Energy Board  
2300 Yonge Street, 26th Floor  
P.O. Box 2319  
Toronto, Ontario  
M4P 1E4

Dear Mr. O'Dell:

Re: **EB-2002-0501 – Hydro One Networks, Ontario Power Generation, and Bruce Power L.P. - Application for Transmission System Code Amendments**

On November 12, 2002, Hydro One Networks Inc. ("HON"), Ontario Power Generation Inc. and Bruce Power L.P., collectively made Application to the Ontario Energy Board (OEB or Board) pursuant to section 70(2)(d) of the *Ontario Energy Board Act, 1998* (Act) for an Order or Orders exempting them from the requirements of subsection 2.1.1 of the Transmission System Code ("Code"). Subsection 2.1.1 requires that Transmitters and Customers enter into a connection agreement in the form set out in Appendix 1 of the existing Code.

This Application sought an exemption from subsection 2.1.1 of the Code to allow entering into a modified form of connection agreement that reflects: the specific operational requirements of nuclear generating facilities; certain legacy issues related to the Parties' facilities; and other generation-related needs.

The modifications to the standard connection agreement in the Code were grouped into four broad categories: i) Changes that address legacy issues related to the Parties' facilities; ii) Changes related to generators; iii) Other changes and; iv) Changes related to nuclear facilities. The first three groups of changes were submitted as Addendum A in that Application. The Changes related to nuclear facilities were submitted to the Board as Addendum B in the November Application.

This letter presents how HON would propose the changes set out in this Application would be applied in the connection agreements of other generators in Ontario.

In summary, HON considers the modified form of the generation connection agreement proposed in the Application, as adapted by the Board in its review, would be applicable to connection

agreements between transmitters and any generator in Ontario except for those proposed modifications that pertain to legacy generation issues from Ontario Hydro.

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The following table sets out HON's view on the application of these modifications:

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Addendum Section	Changed Code Sections	Application
Addendum A Legacy Changes	Equipment Standards 5.1, Liability 8.3	Legacy generators of Ontario Hydro
Addendum A Generator Changes	Operational Standards & Reporting Protocol 6.2; Involuntary Disconnection 7.2.1.6; Requirements for Operations & Maintenance 10.7.3, 10.7.4, 10.8.3, 10.8.4; Emergency Operations 10.13, 10.13.3 – 10.13.8, Technical Requirements for Tapped Transformer Stations Supplying Load 18; Schedule D Section 8-Clause 1 <sup>1</sup> ; Schedule H	Any generator in Ontario
Addendum A Other Changes	Recital, Definitions 1.14; Equipment Standards 5.2; Operational Standards & Reporting Protocol 6.5; Disconnection – General 7.3.2; Reconnection after Involuntary Disconnection 7.4.2.3; Representations & Warranties 9.1.1.3; Requirements for Operations & Maintenance 10.4.1, 10.4.2, 10.6.2, Compliance, Inspection, Testing & Monitoring 15.1.5, Incorporation of Schedules 23; Entire Agreement 28; Schedule F 1.6.2, 1.6.5, 1.8.1, 1.8.5, Schedule G 1.5.2, Schedule I 1.3.1	Any generator in Ontario
Addendum B	Added Definitions 1.19 – 1.39; Purpose of Agreement 2; Transmission System Code 3; Equipment Standards 5.3; Operational Standards & Reporting Protocol 6.8; Involuntary Disconnection 7.2.1; Disconnection-General 7.3.3; Liability 8.1, 8.2; Requirements for Operations & Maintenance 10.1.1, 10.1.2, 10.3.1, 10.6.3; Scheduling of Planned Work 10.11, 10.11.2, 10.11.3, 10.11.4.1, 10.11.4.2, 10.11.5, 10.11.9, 10.11.10, Access & Security of Facilities 10.14.9, 10.14.10, 10.14.11; Term & Termination of Connection Agreements 11, Termination by a Non-Defaulting Party 11.2.1, Right to Disconnect 11.3.1, Right to Remove Assets 11.4.1; Events of Default & Termination 12.4.1, 12.5.1, 12.5.2, 12.6.1; Dispute Resolution – Exclusivity 13.1.1; Duty to Negotiate 13.2.1, 13.2.2; Referral of Unresolved Disputes 13.3.1; Compliance, Inspection, Testing and Monitoring 15.1.7; Incorporation of Schedules 23; Entire Agreement 28; Amendments 29.1.8 – 29.1.13, 29.3; Schedule C Cure Periods for Non-Financial Default Events; Schedule F 1.2.3	Any nuclear generator in Ontario

<sup>1</sup> Following the August 14, 2003 blackout impacting Ontario, requirements set by reliability councils such as NPCC are in the process of being tightened. The modification proposed for Schedule D Section 8 – Clause 1 as with any other part of the Codes' Connection Agreement should evolve so Parties are always in full conformance with such requirements.

As to specific applicability, the modifications proposed in Addendum A each fall into one of three areas: Changes that Address Legacy Issues, Changes Related to Generators, or Other Changes. The mapping of each of the proposed modifications to the connection agreement that are contained in Addendum A is presented in Attachment 1.

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The area, Changes that Address Legacy Issues, contains two proposed modifications to the connection agreement. The first is a modification to Section 5.1 qualifying the requirement for equipment to meet the requirements of the Ontario Electrical Safety Authority with the phrase "unless otherwise exempt". This modification would also apply to the connection agreement of any other generator in Ontario.

14

The second modification in this area applies in the situation where HON owns the synchronizing breakers of the generator. This is a legacy issue arising from the design of certain generation plants by Ontario Hydro. New generators own their own synchronization breakers. This modification to the connection agreement would be irrelevant to other generators in Ontario.

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For Changes Related to Generators, certain modifications to the standard connection agreement were proposed to address issues that relate specifically to generators as opposed to load customers. All of these changes would be applicable to connection agreements with any generator in Ontario.

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Other Changes cover other proposed modifications to clarify the requirements and obligations of transmitters and generators. All of the changes falling in this area would also be applicable in the connection agreements with any generator in Ontario.

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The changes proposed in Appendix B would apply only to nuclear generators in Ontario. The modifications proposed in Addendum B are required in order to ensure the operational safety of nuclear generating stations and to ensure compliance with Power Reactor Operating Licences issued by the Canadian Nuclear Safety Commission. These proposed modifications are fully supported by Ontario Power Generation Inc. and Bruce Power L.P., licenced operators of nuclear generating stations in Ontario.

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Yours truly,

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David B. Curtis

c. Mr. Andrew Barrett, Ontario Power Generation

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Ms. Corinne Draesner, Bruce Power L.P.

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**Attachment 1**  
**Modification of Connection Agreements Contained in Addendum A**

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This attachment presents the allocation of the proposed changes to the connection agreement template in the Transmission System Code that would apply to generators to three areas: Changes Related to Generators, Other Changes or Changes that Address Legacy Issues.

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**Changes Related to Generators**

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(a) Certain modifications to the standard connection agreement were made to address issues that relate specifically to generators as opposed to load customers

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(b) For example, certain sections of the standard agreement that pertain to load shedding during emergency situations are excluded because they are only applicable to load customers, not generators (See Addendum A, Sections, 10.13, and 10.13.3 to 10.13.8).

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(c) Additional modifications were made to clarify the outage isolation and reconnection arrangements for generators. For example, the modifications clarified that the number of times a generator can request isolation and reconnection to the grid at no charge is once a year per generating unit, not per generating site. (See Addendum A Sections 10.7.3, 10.7.4, 10.8.3, and 10.8.4).

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(d) This category includes the following changes set out in Addendum A: Sections 6.2, 7.2.1.6, 10.7.3, 10.7.4, 10.8.3, 10.8.4, 10.13, 10.13.3 to 10.13.8, 18, Schedule D Section 8-Clause 1, and Schedule H.

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**Other Changes**

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(a) Other proposed modifications to the standard connection agreement clarify the requirements and obligations of transmitters and generators with regard to equipment, operations and the allocation of costs. For example, Addendum A, Section 5.2 clarifies that responsibility for the cost of upgrading equipment that was previously deemed compliant is to be determined by the OEB.

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(b) Other modifications clarify the requirements for power quality monitoring equipment (Addendum A, Schedule F, sections 1.6.2 & 1.6.5) and the auto-reclosure process and accountabilities for circuit breakers (Addendum A, Schedule G, section 1.5.2). Also included is a change control process to accommodate changes to certain of the data contained in the agreement, such as changes in equipment specifications or contact names. (Addendum A, Section 23, Schedule M)

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(c) This category includes the following modifications found in Addendum A: Recital, Sections 1.1.4, 5.2, 6.5, 7.3.2, 7.4.2.3, 9.1.3, 10.4.1, 10.4.2, 10.6.2, 15.1.5, 23, 28, and Schedules F, sections 1.6.2, 1.6.5, 1.8.1, 1.8.5, Schedule G section 1.5.2, and Schedule I section 1.3.1.

## Changes that Address Legacy Issues

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(a) Obligations under the standard connection agreement for equipment to meet the requirements of the Ontario Electrical Safety Authority have been qualified by the phrase “unless otherwise exempt” because the Parties are presently exempt from these requirements (Addendum A Section 5.1).

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(b) Modifications are proposed to limit HON’s liability arising as a result of a failure of the synchronizing breakers located in the switchyards of certain generation plants. These generation plants were designed by Ontario Hydro to use equipment now owned by HON as the plant’s synchronizing breakers. Typically, new generation plants would have their own synchronizing breakers. As plants and the switchyard breakers are now owned by different entities, a modification to the liability arrangements in the standard connection agreement was appropriate. OPG and Bruce Power also agreed to study the possibility of installing their own synchronizing breakers (See Addendum A Section 8.3).

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(c) This category includes the following modifications set out in Addendum A: Sections 5.1 and 8.3.

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