



**EB-2006-0189**  
**EB-2006-0200**

**IN THE MATTER OF** section 6.1.5 of the Ontario Energy Board's Transmission System Code;

**AND IN THE MATTER OF** an application by Hydro One Networks Inc. for the review and approval of connection procedures;

**AND IN THE MATTER OF** an application by Great Lakes Power Limited for the review and approval of connection procedures.

**BEFORE:** Paul Sommerville  
Presiding Member

## **DECISION AND ORDER**

September 6, 2007

## INTRODUCTION

On July 25, 2005, the Ontario Energy Board issued a revised Transmission System Code (the “Code” or “TSC”). Among the obligations contained in the revised TSC is a requirement that all licensed transmitters in Ontario file, within one year, their respective connection procedures for Board approval. This Decision and Order relates to the connection procedures filed by Hydro One Networks Inc. (“Hydro One”) and Great Lakes Power Limited (“GLPL”).

The connection procedures comprise the steps to be taken by the transmitter to accommodate customer requests for new or modified connections to its system. Together with the relevant contractual documents, and of course the terms of the Code itself, these procedures govern the relationships between the transmitter and its customers in the period preceding and during the connection construction process. These are dynamic relationships involving new connections, changes to existing connections, and the complex of rights and obligations invoked when these circumstances arise. The revised Code confirms that customers served by a transmitter’s connection facilities (comprising transformer connection and line connection facilities) are participants in a matrix of rights and responsibilities involving each other, the transmitter, and the system as a whole.

This proceeding is the first opportunity for the Board to approve the connection procedures to be utilized by the Province’s principal transmitters. Prior to this, the Board reviewed, but did not mandate, the terms of these interactions.

A key element in the Board’s approval of the respective connection procedures is the extent to which they are consistent with, and reflect the underlying principles governing, the Code. The primary embedded value in the Code and, by natural extension, the connection procedures, is that of non-discrimination. It is imperative that the rules governing the relationship between transmitter and customer are characterized by equality of treatment guaranteed by fair, transparent, and effective processes. In furtherance of that objective, it is also important that the rules be clear.

As part of this process, the respective transmitters submitted comprehensive connection procedures proposals. The proposals were first subject to a significant stakeholder consultation process. They were then subject to an interrogatory process in this

proceeding, where parties were able to explore the meaning and application of the procedures.

For the most part, the connection procedures filed have not drawn substantial criticism or comment from the intervening parties or Board staff. This is evidence of the transmitters' commitment to a fair, transparent and effective connection process.

There are specific elements of the filed proposals that have caused concern among intervenors and Board staff. This Decision and Order will address those areas of concern. There are certain sections in both connection procedures proposals where responses by the applicants during this proceeding added clarity, and are therefore also identified as required amendments to the respective connection procedures.

The outcome of this combined proceeding is a comprehensive set of Board-approved connection procedures for each transmitter, subject to each transmitter making the amendments required by this Decision and Order. To that end each transmitter is required to submit its revised customer connection procedure for Board approval no later than Friday, October 12, 2007.

The remainder of this Decision and Order is divided into four sections. The first section describes the steps taken in this combined proceeding, the second section deals the status of the Connection and Cost Recovery Agreements , the third section deals with Hydro One's application and the fourth section deals with GLPL's application.

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## 1. THE PROCEEDING

On August 18, 2006, Hydro One filed its connection procedures for review and approval by the Board under section 6.1.5 of the Code. On August 21, 2006, GLPL filed its connection procedures for review and approval by the Board under the same section of the Code.

On September 15, 2006, the Board issued a Notice of Applications and Combined Hearing in relation to the two applications. Among other things, the Notice indicated that the Board would conduct a combined proceeding for the two applications, given that they would likely raise similar issues and that persons interested in one application may well have a similar interest in the other.

The Board received requests for intervention from the following six parties with respect to both applications: the Association of Major Power Consumers in Ontario (“AMPCO”); the Association of Power Producers of Ontario (“APPPrO”); the Electrical Contractors Association of Ontario (“ECAO”); the Independent Electricity System Operator (“IESO”), Ontario Power Generation Inc., and the Power Workers’ Union (“PWU”). In addition, Hydro Ottawa Limited requested intervenor status in relation to the Hydro One application only. The Board granted intervenor status to all of the parties that requested it.

No party objected to the Board holding a written hearing in this matter, and therefore the Board proceeded with this combined proceeding by way of a written hearing.

The Board issued its Procedural Order No. 1 on October 18, 2006. In that Procedural Order, the Board determined that ECAO, AMPCO and APPPrO were eligible for an award of costs in this proceeding, and established a schedule for the exchange of interrogatories and interrogatory responses as well as for the filing of written submissions and replies. Interrogatories were submitted by intervenors and Board staff to the two applicants, and responses to those interrogatories were filed on the prescribed dates by the two applicants. On December 11, the Board issued its Procedural Order No. 2 in which it extended the deadlines for written submissions and reply submissions to allow for additional time for all parties. The revised deadline for

intervenor and Board staff submissions was Friday, January 26, 2007, and that for the reply submission by the two applicants was Friday, February 23, 2007.

Following receipt of Hydro One's written reply submissions, an issue arose in this proceeding that also has implications for other proceedings before the Board. The issue relates to Hydro One's interpretation of section 6.3.6 of the Code, and more specifically of the circumstances in which a capital contribution is or is not required. The practical effect of Hydro One's interpretation of section 6.3.6 of the Code has arisen in two leave to construct proceedings that are currently before the Board under section 92 of the *Ontario Energy Board Act, 1998* (the "Act"). One proceeding (EB-2007-0013) relates to an application filed by Hydro One on February 28, 2007 for leave to construct the "Western Brampton Transmission Reinforcement Project". The other (EB-2007-0027) relates to an application filed by Hydro One on March 9, 2007 for leave to construct the "Woodstock Area Transmission Reinforcement". These two projects were also included in the list of "Development Capital" projects that was filed by Hydro One in the context of its transmission rates application (proceeding EB-2006-0501).<sup>1</sup>

On May 11, 2007, Hydro One filed a letter with the Board identifying the rationale and merits underlying its proposed treatment of capital contributions. The letter also indicated Hydro One's view that any decision on alternate positions with respect to capital contributions should be discussed on the public record as part of this combined proceeding.

The Board decided that this combined proceeding is the most appropriate one in which to determine the interpretation and application of section 6.3 of the Code. To that end, the Board issued its Procedural Order No. 3 on June 7, 2007, inviting submissions on the interpretation of section 6.3 of the Code and associated cost responsibility issues. Submissions were invited from Board staff, intervenors in this combined proceeding and the following additional persons: intervenors in the Hydro One transmission rate hearing; intervenors in the two leave to construct applications referred to above; Toyota Motor Corp.; Hydro One Brampton; Hydro One Networks Inc. (in relation to its distribution business); and all licensed electricity transmitters (GLPL, Canadian Niagara Power Inc. and Five Nations Energy Inc.).

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<sup>1</sup> The Board issued its Decision and Order in the transmission rates proceeding on August 16, 2007. That Decision and Order does not address the issue of capital contributions in relation to these two projects, but does refer to the issue in relation to a third project for which leave to construct is not required. The issue as it relates to all three projects is discussed further in section 3.5 of this Decision and Order.

A total of ten submissions were received by July 9, 2007, as follows:

- Three submissions representing the views of 11 distributors: (1) the first from Cambridge and North Dumfries Inc, Guelph Hydro Electric System, Kitchener-Wilmot Hydro Inc., and Waterloo North Hydro Inc.;<sup>2</sup> (2) the second from Woodstock Hydro Services Inc.; (3) the third from the Coalition of Large Distributors (“CLD”) representing Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited, and Veridian Connections Inc.
- AMPCO
- Electricity Distributors Association (“EDA”)
- Five Nations Energy Inc.
- GLPL
- Ontario Power Authority
- PWU
- Board staff

Hydro One filed its reply submissions on July 23, 2007.

## **2. STATUS OF CONNECTION AND COST RECOVERY AGREEMENT**

The connection procedures proposals filed by both Hydro One and GLPL include a requirement that the customer enter into a Connection and Cost Recovery Agreement (“CCRA”) as part of the connection process. Each transmitter filed a copy of its template CCRAs (one intended for generator customers and the other intended for load customers) in response to interrogatories.

A number of issues emerged which related to the specific terms of the template CCRAs filed by Hydro One and GLPL in connection with this proceeding. In addition to the specific issues highlighted by various parties, there is an overarching one, which concerns the question as to whether this agreement, that is the CCRA, should itself be subject to Board approval. This section addresses that overarching issue.

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<sup>2</sup> The letter from these four distributors was dated June 1, 2007 (in other words, prior to the issuance of the Board’s Procedural Order No. 3) in response to Hydro One’s letter of May 11, 2007. The letter was received by the Board on June 13, 2007.

Board staff has suggested in its submissions that the template CCRA as a whole, ought to be the subject of Board approval, in exactly the same manner as is provided for the customer connection procedures themselves. Board staff argues that the CCRA template is so integral a portion of the connection procedures mechanism that it should be specifically approved by the Board.

Hydro One and GLPL disagree. In Hydro One's view, the CCRA is a commercial document that needs to have an appropriate level of flexibility to meet a dynamic and ever-changing environment. Hydro One submits that to require the template itself to be approved, would place an unreasonable limitation on customers and the transmitter alike in arriving at appropriate terms to govern their relationship. GLPL's submissions were largely to the same effect. Both transmitters do appear to acknowledge that the CCRA must comply with the Code and cannot be inconsistent with it.

Both transmitters note that the Code does not mandate a CCRA. However, in the Board's view this does not dispose of the issue since the connection procedures proposal filed by each transmitter requires the customer to enter into a form of CCRA. On that basis, the CCRA could be said to form part of the transmitters' connection procedures and therefore the proper subject-matter of Board approval.

The Board considers, however, that it is not necessary at this time to require that the template of the CCRA be specifically approved by the Board. It is important that the parties to these agreements have sufficient flexibility to meet their respective needs. Requiring the approval of the template would have the effect of freezing the terms of the CCRA in a way that would frustrate that objective.

In its consideration of this issue, the Board is guided by the fact that the Code explicitly renders inoperable any contractual provisions which appear in any contractual instrument which are inconsistent with the provisions of the Code. This means that any provision of the CCRA which is found by the Board to be inconsistent with the Code cannot be enforced.

It is the Board's view that the various protections respecting conformity with the Code are sufficient to enable customers to contract confidently with the transmitters. If it appears that this approach leads to abuses or unacceptable uncertainties it can be revisited.

Notwithstanding that the Board will not require that the CCRAs be approved as a whole, the Board notes that some elements of CCRAs as filed are inconsistent with the Code. Other elements of the CCRAs in the Board's view require clarification. These elements are addressed as part of the discussion of each transmitter's connection procedures proposal below.

### **3. CUSTOMER CONNECTION PROCEDURES ("CCP") - HYDRO ONE NETWORKS INC.**

#### **3.1 AVAILABLE CAPACITY**

Under the Code, "available capacity" on a connection facility is calculated by subtracting the total assigned capacities of all customers at that facility from the facility's total normal supply capacity. One of the revisions effected in the Board's review of the Code in July 2005 was the requirement that the transmitter inform customers upon request for assignment of capacity to a specific connection facility of the available capacity and the total normal supply capacity of that facility.

The amount of available capacity is a critical determination when additional amounts of capacity are being requested by customers. The financial obligations associated with such additional capacity requests are directly affected by the extent to which there is available capacity at the connection facility.

The Code contains rules regarding the calculation of a customer's assigned capacity. The Code also speaks of a customer's contracted capacity. Contracted capacity for a customer in relation to which no economic evaluation was conducted is determined based on historical load. Contracted capacity for a customer in relation to which an economic evaluation was conducted is determined on the basis of the load forecast that was used in performing the economic evaluation or on subsequent load forecasts used for true-up purposes.

In accordance with the Code, a transmitter's connection procedures must include the steps the transmitter will take when the assignment of capacity begins to approach the total normal supply capacity of the connection facility. The connection procedures must also include a procedure for determining the total normal supply capacity of a facility.

The connection procedures proposal filed by Hydro One contains a highly detailed set of protocols for the determination of all of the important parameters associated with available capacity, including assigned capacity, contracted capacity and total normal supply capacity.

Under Hydro One's CCP, each connection facility is classified as either a summer or winter peaking facility. The total normal supply capacity of a connection facility is based on its electrical rating and its peaking requirements. This figure establishes the total capacity of a connection facility. Available capacity is then calculated using the allocation of portions of the total normal supply capacity of the connection facility to the customers connected to the facility. For example, the available capacity for a summer peaking connection facility is the facility's total normal supply capacity in summer less the total assigned capacity at that facility.

Under Hydro One's CCP, capacity on connection facilities is assigned to customers, according to the customers' contractual commitment for capacity or historical load. Customers are entitled to capacity on that basis.

Most of Hydro One's CCP as it relates to available capacity has met with support, or at least no serious criticism, from any intervenor or Board staff.

There are, however, several issues that need to be resolved.

### **3.1.1 Treatment of Additional Feeder Positions**

The first unresolved issue relates to the treatment of new feeder breakers, typically to accommodate new feeder position(s), at transformer stations. A customer may request that new feeder breakers be installed in order to access available capacity at the station. The installation of new feeder breakers is typically needed to accommodate load growth and would, subject to availability of capacity, increase the utilization of that station thereby improving efficiency.

The question is: how are these changes to transformer station equipment, performed at the request of a customer, to be accounted for as between the transmitter and the customer?

It is Hydro One's view that the excess transformer capacity, forming part or all of the available capacity, is effectively inaccessible to the customer without the new feeder breaker. Its proposal would require that the new feeder breaker be installed and an economic evaluation conducted to recover the cost of construction. Accordingly, it is Hydro One's view that the increase in capacity to that customer brought about by the new feeder breaker should be characterized as new contracted capacity.

It is Board staff's contention that while it is clear that the customer must bear responsibility for the costs associated with the new feeder breaker equipment at an existing transformer station, it should not be characterized as new contracted capacity.

The importance of characterizing the new capacity brought about by the equipment configuration as new contracted capacity relates to the application of the true-up provisions of the Code. Contracted capacity is subject to a true-up mechanism which is designed to ensure that customers are meeting their contractual and financial responsibilities to the transmitter, thereby protecting the interests of other users of the system i.e., all other transmission customers. Hydro One's concern is that, in its view, the Code can operate so as to limit its ability to appropriately recover from customers in these situations, unless the capacity is characterized as contracted capacity.

At the heart of the issue is the characterization of the feeder breaker installation. On the one hand, this can be considered to be in the nature of an equipment upgrade, which unlocks capacity that was previously inaccessible. The capacity accessed in this manner is not new capacity, because the fundamental rating of the station has not changed. In this scenario, the customer pays for the costs of the equipment upgrade, but the additional capacity accessed is not properly considered to be new "contracted capacity" if the customer had already been assigned that amount of capacity on the basis of its load forecast.

On the other hand, it can be considered to be a new request for an additional allocation of capacity at the station, which would normally be characterized as assigned capacity in response to that new request.

The Board considers that the fundamental component of contracted capacity is the load forecast developed by the customer on the basis of its requirements and its expectations of load growth. This is typically included in an agreement executed prior to

commencement of construction. This load forecast forms the basis of the complex financial assessment which lies at the heart of the relationship between the transmitter and the customer as established by the Code. In the Board's view, the request by a customer for additional feeder breakers does not, by itself, constitute a request for additional contracted capacity, as this capacity is already available to the customer either as part of an existing contract with an associated load forecast, or as part of a request by the customer for available capacity on an existing station as set out in the Code under section 6.2. In circumstances where a customer requests an equipment reconfiguration or addition to improve the efficiency and effectiveness of the station, it is appropriate that the customer pay those costs, but it is not appropriate that the contracted capacity be adjusted. The true-up process should assess the extent to which the customer is meeting its obligations with respect to load as identified in its load forecast.

Accordingly, the connection procedures proposal filed by Hydro One must be amended to reflect this finding. All references in the CCP are expected to be changed to reflect this finding including Section 2.2 "Available Capacity Procedure", step 2.8 of the proposal.

### **3.1.2 Deeming of Contract Capacity**

Hydro One's connection procedures proposal makes reference to the concept of "deemed contract capacity". In regard to confusion regarding the term "deemed contract capacity" used in Section 2.2 of the CCP, step 2.2, the Board agrees with Hydro One's proposal to clarify the intent of that term, and therefore requires that the word "recognized" replace the word "deemed" as it concerns contacted capacity.

In order to clarify the steps for determining assigned capacity for each customer described in Section 2.2, step 2.5, Hydro One in its reply argument proposed to amend the third sentence of that step. The Board accepts Hydro One's proposal and accordingly requires that the referenced sentence be replaced by the following sentence:

"The customer's final assigned capacity will be the aggregate of the customer's assigned capacity based on historical loading and any assigned capacity adjustments derived from available capacity that have been assigned to the customer and that have not been taken up by the customer or cancelled under Step 2.4"

### **3.2 SECURITY DEPOSIT – CALCULATION OF INTEREST ON SECURITY DEPOSIT**

The calculation of interest on security deposits, as specified in the CCP under section 2.3, is an unresolved issue. Hydro One proposed in its CCP that the interest to be paid be based on the “Bank of Canada Bank Rate”.

The Board considers it appropriate to provide some clarity with respect to the Code’s provisions regarding the calculation of interest to be paid on security deposits. These are set out in section 6.3.11(b), and refer to the “prime lending rate set by the Bank of Canada”, plus or minus two percent.

Board staff in its submission offered two alternate interpretations in relation to the applicable interest rate: (1) the “Bank of Canada Bank Rate”; or (2) the “Prime Business Rate” set by the Bank of Canada.

Board staff favoured the option of using the “Prime Business Rate” set by the Bank of Canada and posted on its website, arguing that it ensures that Hydro One’s financial risk is mitigated and that the level of the interest rate is appropriate to pay customers for the amount they could earn on the funds held.

Board staff also pointed out that the “Prime Business Rate” is the rate prescribed for use in connection with security deposits held pursuant to the Distribution System Code (the “DSC”).

Hydro One’s reply indicated that it has no strong views on the subject and wishes only that the Code be clear.

The Board concludes that the “Prime Business Rate” set by the Bank of Canada is the rate to be used in calculating the interest to be paid by a transmitter on security deposits. Use of this rate has the twin virtues of being easily determinable while also being consistent with the Board’s practice under the Distribution System Code.

Accordingly, the connection procedures proposal filed by Hydro One must be amended to reflect this finding.

### 3.3 CONTESTABILITY – COMPETITION FOR CUSTOMER OWNED CONNECTION ASSETS

It is implicit in Hydro One's connection procedures proposal, including its proposed CCRA, that Hydro One considers that it is entitled to bid along with other contractors to design and construct connection facilities for customers who intend to retain ownership of them.

The Board notes that the references in Hydro One's CCP and CCRA deal with situations that could include system components or elements being constructed, installed or put together by Hydro One in circumstances where the components or elements will be owned by the customer. This appears to contemplate that Hydro One may be acting as a contractor on behalf of the customer in relation to customer-owned facilities.

This issue was initially raised in this proceeding through interrogatories filed by ECAO and Board staff. Board staff and ECAO contend that pursuant to section 71 of the Act such work can only be carried out by affiliates of the transmission company.

Hydro One's position is that section 71 of the Act does not prohibit, nor was it intended to prohibit, Hydro One or any other distributor or transmitter in Ontario from carrying on such construction activities within the distribution or transmission corporation. Hydro One responded to Board staff Interrogatory No. 28 to the effect that the building of electrical transmission and distribution (including the building of connection facilities) infrastructure is integral to transmitting and distributing electricity. Hydro One further asserted that where the Act refers to a "business activity other than transmitting or distributing electricity," the Legislature did not intend for those words to refer to the closely-related work of the type referred to in the Interrogatory.

Hydro One states that the same understanding must also have been in the minds of the drafters of the Code, who chose not to prohibit customers from exercising their right to choose who would build their connection facilities. In Hydro One's view it is clear, through certain sections of the Code particularly, sections 6.6.1, 6.6.2(a), and 6.6.2(c), that in the case of contestable work, the customer can even require that the transmitter (not an "affiliated corporation") construct the connection facilities. Hydro One believes it should remain the customer's right to contract with Hydro One if the customer so chooses.

The Board accepts Hydro One's assertion that the construction of transmitter-owned connection facilities is an integral component of the transmission of electricity and therefore is not subject to the prohibition contained in section 71 of the Act.

The situation is different, however, when the facilities to be constructed are not owned by the transmitter, but are rather part of the plant owned, operated and controlled by a transmission customer. By definition, such facilities are not part of the transmitter's system and their construction cannot be seen as integral to the transmitter's design and operation of that system. It follows that their construction cannot be seen in the same light as construction of transmission assets to be owned and operated by the transmitter. The construction of such projects should be seen as independent undertakings by customers, the design and placement of which may be informed by the transmitter, but which are fundamentally private in nature. As such, they are really no different than other kinds of construction projects, such as office or warehousing facilities, which clearly could not be undertaken by the transmitter given the wording of section 71.

The difference in ownership is a critical distinction. Where the transmitter constructs and owns the assets, it is meeting its licence obligation, and the net capital investment is rolled into its rate base, and in turn is reflected in its revenue requirement. The effect of the transmitter competing in the marketplace for the construction of customer-owned connection facilities is to raise the spectre of potential cross-subsidization of these unregulated activities by the regulated transmission revenue requirement. Such projects fall outside the transmitter's scope, and are therefore subject to the prohibition contained in section 71.

This finding is consistent with Compliance Bulletin No. 200605 directed to distributors, which addresses issues relating to compliance with section 71(1) of the Act. That Bulletin states that, among other things, the following activity would not be a permitted business activity for a distributor: "provision of engineering and construction services, where such services are provided outside the scope of a distributor's obligations (for example, in relation to privately-owned electrical infrastructure)".

The Board therefore concludes that section 71 of the Act prohibits Hydro One from acting as a contractor on behalf of the customer in relation to customer-owned facilities. Therefore, all sections of Hydro One's CCP that deal with this aspect need to be amended, including Section 2.6, pages 39, 40 and 43, and "Option 3", as should the

CCRA, page 7 (on “Ownership”, bolded text in brackets) and page 8 (Work chargeable to customers).

### **3.4 DISPUTE RESOLUTION – SETTLEMENT DURING ARBITRATION**

The dispute resolution provisions of Hydro One’s CCP under Section 2.8, pages 48-50, contemplate that a Settlement Agreement may be signed by the parties by way of resolution of a dispute. Those provisions do not, however, specify what would happen if a Settlement Agreement is signed, but a party fails to comply with the terms of the settlement. In its reply submissions, Hydro One indicated that it could amend the CCP by adding a provision that states that, where a party fails to comply with the terms of a Settlement Agreement, the other party shall, in addition to any other rights it may have in the Settlement Agreement or in law, have the right to take the matter to the Board for resolution.

The Board believes that the addition of a provision of this nature would provide greater clarity to connecting parties, and requires that Hydro One amend its CCP. The Board does not believe that Hydro One’s proposal is in all respects appropriate. Specifically, Hydro One’s CCP incorporates by reference the dispute resolution provisions of the Connection Agreement. Those provisions, and section 17.5.11 in particular, specify that where a party fails to comply with the terms of a settlement agreement reached during the course of an arbitration, the other party may submit the matter to arbitration if the settlement has not been recorded in the form of an award under the *Arbitration Act, 1991*. Accordingly, submission of the dispute to the Board is not appropriate in such cases.

In regard to Hydro One’s “Summary of Dispute” on page 50 of its CCP, the Board understands from the exchange of interrogatories and submissions on that aspect that Hydro One will retain records relating to the resolution of disputes. The Board reminds Hydro One that such records must be filed with the Board upon request, and expects Hydro One to ensure that connecting parties understand that this is the case. Where warranted, those records may be filed with a request that they be held in confidence in accordance with the Board’s “Practice Direction on Confidential Filings.”

### **3.5 TRANSMISSION PLANS AND COST RESPONSIBILITY FOR CONNECTION FACILITIES**

Section 6.3.6 of the Code requires transmitters to develop plans to meet load growth and maintain system reliability. It also states that a transmitter cannot require a capital contribution for a connection facility that was otherwise planned by the transmitter, except for advancement costs.

Hydro One's written reply submissions of February 23, 2007 revealed an interpretation of section 6.3.6 of the Code which may have significance for connecting customers and others. Specifically, Hydro One's position is that a capital contribution is not required for the construction or reinforcement of connection facilities which it characterizes as being for "Local Area Supply" or "LAS", except for advancement costs. An LAS connection facility is defined by Hydro One as a radial line (or line connection facility) that serves more than a single customer.

A possible implication of this approach is that a large number of situations could arise where Hydro One would finance the construction and reinforcement of line connection facilities through the Line Connection Pool, without obtaining a capital contribution from the connecting parties.

As noted in section 1 of this Decision and Order, the practical effect of Hydro One's interpretation of section 6.3.6 of the Code has been manifested in two leave to construct proceedings (the "Western Brampton Transmission Reinforcement Project" and the "Woodstock Area Transmission Reinforcement Project") that are currently before the Board. During the Hydro One transmission rates proceeding, it became apparent that Hydro One's intention was for the cost of those two projects, as well as a third (the "Cambridge Preston Transformer Station" project) to be financed from the Line Connection Pool.

As noted earlier, the Board determined that this combined proceeding is the most appropriate one in which to determine the interpretation and application of section 6.3.6 of the Code and associated cost responsibility issues, and issued its Procedural Order No. 3 inviting submissions on the matter from parties to this combined proceeding and others. The ten submissions received by the Board on this issue represent the views of different stakeholder groups, as well as those of Board staff.

In addition to the cost responsibility issue, a separate issue arose in relation to section 6.3.6 of the Code and the associated requirement in section 6.1.4(i) that a transmitter's connection procedures include an obligation on the transmitter to disclose the most recent version of the transmission plans referred to in section 6.3.6 of the Code. This issue relates to the transmission plans that are disclosed by a transmitter to a customer. Hydro One's CCP does not contemplate that customer-driven plans or plans for network facilities be disclosed to customers. Board staff, in its submissions of January 26, 2007, submitted that such plans should be provided to customers to provide a complete picture of transmission system expansions in the area. In its reply submissions filed in response to Procedural Order No. 3, Hydro One indicated that it agrees with Board staff that all expansions in a particular area should be reflected in the transmitter's plans that are provided to a connecting customer. Hydro One also agreed that, in accordance with section 6.1.4(i) of the Code, Hydro One will provide the most recent version of plans developed and maintained in the context of meeting electricity supply needs, and that cover expansions to transformation connection facilities, line connection facilities and network facilities. The Board notes that this approach would be consistent with the practice of other transmitters. This is the case for GLPL. In addition, First Nations Energy Inc. in its submissions in response to Procedural Order No. 3, also indicated that it provides a connecting customer with information respecting any planned connection facilities whether such plans are for another customer's connection facilities or developed for system integrity and reliability reasons. The Board will therefore require Hydro One to amend its CCP accordingly.

The remainder of this section addresses the broader cost responsibility issues arising in relation to section 6.3.6 of the Code. The Board will require Hydro One to amend its CCP to reflect the findings made below in relation to the interpretation of section 6.3.6 of the Code.

### **3.5.1 Position of the Parties**

#### Electricity Distributors

Submissions that in the aggregate represent the views of eleven electricity distributors supported Hydro One's interpretation of section 6.3.6 of the Code. The Coalition of Large Distributors ("CLD"), representing six distributors, argued that the section allows transmitters to plan, construct, and finance their transmission systems without a requirement for customer contribution, except to accelerate a specific project's schedule. The CLD pointed out that there is no clear distinction between those projects

that are requested by customers, on the one hand, and those that are part of the overall transmitter's system plan, on the other.

The CLD also submitted that, if the Board rejects Hydro One's interpretation of section 6.3.6 of the Code, a connection project proponent may need to raise sizable capital to fund the capital contribution. The CLD expressed a concern that, in such circumstances, the costs associated with capital contributions may not be recoverable in a timely fashion, given the Board's current incentive mechanism for rate making.

### EDA

EDA supported Hydro One's position, indicating that many of its members expressed concern regarding their ability to raise the requisite capital to support capital contributions and to recover the costs associated with the contributions under the Board's current rate setting mechanism. The EDA argued that Hydro One's approach avoids the difficulty of attributing the costs to the various parties and avoids the associated disputes.

### AMPCO

AMPCO generally supported Hydro One's approach, but observed that there were bound to be circumstances that would require Board involvement to achieve equitable results. AMPCO considered three options: (1) require a non-recoverable capital contribution from the initiating party or parties; (2) require a partially recoverable capital contribution from the initiating party or parties; (3) construct non-dedicated (i.e., more than one customer will use the asset) transmission connection assets without capital contributions (i.e., socialize the costs).

AMPCO preferred option (3), but outlined two concerns where this approach will require intervention by a Board Panel to ensure appropriate outcomes.

AMPCO's first concern was that the approach adopted by Hydro One, which limits the number of circumstances where a capital contribution would be required, could result in a tendency on the part of the transmitters to build their asset base excessively. It acknowledged that, in some circumstances, where a leave to construct application was required intervenors would have an opportunity to contest the need for the project, and its scale.

AMPCO's second concern related to circumstances where the need for reinforcement is driven by a single customer, but where the reinforcement is carried out on a connection line serving a second customer. AMPCO suggested that, in this circumstance, cost responsibility should be attributed to the single customer that triggered the need.

### FNEI

FNEI, a licensed transmitter, indicated that in regard to cost responsibility any customer-driven connection facilities (e.g., a new connection or load growth requiring a modified connection) will be subject to a capital contribution calculation. In its view, only new or modified connection facilities aimed at improving overall system integrity and reliability are properly paid for by the Line Connection Pool.

FNEI pointed out that the Board, through leave to construct and rate-making provisions, can scrutinize the appropriate cost allocation of a transmitter's capital projects.

FNEI views section 6.3.6 of the Code as an exception to the cost responsibility rules of sections 6.3.1 and 6.3.2 of the Code.

### GLPL

GLPL submitted that, in accordance with its interpretation of section 6.3.6 of the Code, it develops and maintains transmission plans to meet load growth and maintain the reliability and integrity of its transmission system. These transmission plans will not require a customer to make a capital contribution with respect to projects listed in the plan, except for advancement costs.

GLPL also submitted that the general rule, captured in section 6.3.1 and section 6.3.2 of the Code, requires that capital contributions be made by load customers whose needs have triggered the specific project. GLPL indicated that it regards sections 6.3.5, 6.3.6 and 6.6.8 to be exceptions to the general rule set out in section 6.3.1 and section 6.3.2.

GLPL stressed that under section 6.3.6 of the Code, transmission plans developed by the transmitter to account for system growth, reliability and integrity are made to fulfill the transmitter's obligations under the Code, its licence and good utility practice. Plans are not made in respect of specific customer needs triggering new or modified

connections, but rather for system's integrity, reliability and growth as a whole. As such, in GLPL's view, a customer should not be responsible for the payment of a capital contribution with respect to projects identified within such transmitter-driven plans.

### PWU

PWU supported Hydro One's view in regard to section 6.3.6 of the Code. PWU advocates that any project that clearly meets load growth and maintains system reliability should not require customers to make capital contribution as per section 6.3.6 of the Code.

### OPA

The OPA submitted that it supports the principle embodied in section 6.3.6 of the Code and generally agrees with the interpretation given to it by Hydro One. However, the OPA does not agree that line connection facilities which supply one delivery point or several delivery points for one customer should always be excluded from plans developed under section 6.3.6.

The OPA expressed a concern that the section could have the effect of distorting planning decisions, to the extent that it may provide an incentive for a major new customer to choose to become embedded within a distributor in order to avoid making a capital contribution. The distributor would, in that circumstance, be required to pay a capital contribution to the transmitter but it is the OPA's understanding that the current wording of the Distribution System Code would preclude the distributor from passing on the cost of the capital contribution to the customer causing the need for such a connection investment.

### Board Staff

Board staff noted that section 6.3.6 of the Code does not elaborate on what might constitute a "plan" for purposes of that section. Board staff suggested that the first sentence of this section contemplates two types of plans; plans related to load growth and plans developed to maintain reliability and integrity of the transmission system.

The first type of plans are customer-driven plans formulated in response to the load growth of one or more customers. The Code first requires the transmitter to determine

whether that need can be met from existing connection facilities (as referred to in sections 6.2.5, 6.2.11, 6.2.12 and 6.2.14 of the Code), and if the need requires the reinforcement of connection facilities, the transmitter will develop a plan and must conduct an economic evaluation to determine the amount of the capital contribution to be attributed to the customer(s).

The second type of plans are developed in response to: system requirements such as maintenance of adequate voltage regulation; input from industry stakeholders indicating a need to address power quality issues; the need to replace facilities reaching the end of their useful life; the need to upgrade facilities to meet present-day standards; and changes in the electricity sector. A capital contribution is not required for connection facilities that are identified in such plans.

Board staff submitted that, regardless of which transmission plan is considered (i.e., either customer driven or for system integrity and reliability), where a customer wishes to advance the construction of a new or modified facility described in any plan, that customer must pay advancement costs in accordance with section 6.3.6 of the Code.

Board staff concluded that there is nothing in the Code that suggests that section 6.3.6 of the Code was intended to be used to over-ride the other cost allocation principles set out in the Code. The general rule under the Code is that the customer that triggers the need for a new or modified connection facility bears responsibility for the costs associated with the work. This is clear from sections 6.3.1, 6.3.2 and 6.3.4 of the Code. This holds equally true where the work is triggered by more than one customer (sections 6.3.14 to 6.3.16 of the Code) or where the work avails to the benefit of more than one customer (sections 6.2.24, 6.2.25, 6.3.9 and 6.3.17 of the Code).

In regard to the “User Pays” or the cost causation principle, Board staff submitted that Hydro One’s interpretation of section 6.3.6 of the Code could seriously erode that principle which underlies much of the Code, by shifting the cost burden from the individual customer(s) to ratepayers through an increase in line connection charges. In effect, in Board staff’s view, distributors and large consumers experiencing load growth will be subsidized by all other transmission load customers.

Board staff also noted that various Code provisions (sections 6.3.8, 6.3.17 and 6.7.2) are designed to ensure that the capital contribution payable by a customer that is triggered by the need for a new or modified connection facility is appropriate in the

sense of being commensurate with the customer's needs. For instance, section 6.7.2 when applied to replacement of line connection facilities at no cost to customers, would lead to reduction of the costs attributed to these customers in various situations, such as replacement of 115 kV line connection, with a 230 kV line connection. In such a case, the attributable costs to benefiting customers would be reduced by the equivalent replacement cost of the 115 kV line connection, with adjustment for timing differences.

### Hydro One's Reply

Hydro One reiterated its position that, in its view, a customer is not required to make a capital contribution for any line connection facility that serves more than a single customer.

Hydro One argued that, to avoid ambiguity, a clear and practical rule is needed to interpret the meaning of the phrase "otherwise planned" in section 6.3.6 of the Code. Hydro One interprets this to mean that a customer is not required to make a capital contribution for any connection facility that was already included in its LAS planning.

Hydro One disagreed with Board staff's view of the distinction between two types of transmission plans. The first type relates to load growth while the second type pertains to reliability and integrity of the transmission system.

Hydro One does not distinguish between plans developed to meet load growth and plans for system reliability and integrity, since there is often no clear distinction between them. Hydro One referred to comments made in the CLD's submission to the effect that in relatively few cases is there a clear distinction between projects undertaken at a customer's request and projects which are part of the transmitter's overall system plan.

Hydro One submitted that a transmitter should develop and maintain plans that do not distinguish between load growth and system reliability and integrity, but rather that address both together, as required by section 6.3.6 of the Code.

With regard to the quantum of capital contributions, Hydro One submitted that it does not share Board staff's view that appropriate mechanisms exist in the Code to adequately address the issue of high capital contribution amounts faced by customers requiring system enhancement.

### 3.5.2 Board Findings

First, it is important to emphasize that this combined proceeding has as its exclusive focus the review and approval of the respective connection procedures filed by the Hydro One and GLPL pursuant to section 6.1.5 of the Code.

It is not a process to review or revise the Code per se, which can only be undertaken pursuant section 70.1 of the Act after appropriate notice to interested parties. The Board's task in this case is to consider the extent to which the connection procedures filed are consistent with the Code as it stands. A number of the submissions filed in response to Procedural Order No. 3 with respect to this issue seem to have been directed to rewriting the Code (in other words, to identify how the Code should address the issue), not interpreting it according to its current language.

Section 6.3.6 of the Code provides as follows:

*A transmitter shall develop and maintain plans to meet load growth and maintain the reliability and integrity of its transmission system. The transmitter shall not require a customer to make a capital contribution for a connection facility that was otherwise planned by the Transmitter, except for advancement costs.*

The purpose of this section is two-fold. First, it requires the transmitter to develop "plans" that address load growth and the reliability and integrity of the system. Second, it provides a qualified exception to the general rule that a connection customer has an obligation to make a capital contribution for the creation of or enhancement of connection facilities that are intended to provide particular benefit to that customer.

The remainder of section 6.3 of the Code provides direction to the transmitter with respect to obtaining capital contributions from customers who benefit from system enhancement. For example, section 6.3.2 provides:

*Where a transmitter has to modify a transmitter-owned facility to meet a load customer's needs, the transmitter shall require the load customer to make a capital contribution to cover the cost of the modification.*

This language is highly prescriptive and non-discretionary.

That section goes on to limit the capital contribution required to an amount derived from the economic evaluation technique provided for in section 6.5 of the Code.

Like provisions, with like effects, govern the case where a generator requires system enhancements.

The Code also addresses situations where more than one customer will benefit from the enhancement, and where a customer seeks to benefit from an enhancement within five years of its completion (see sections 6.3.9, 6.3.17, 6.2.24 and 6.2.25 of the Code). In all these situations capital contributions are required.

These provisions demonstrate that the fact that a number of customers benefit from an enhancement does not, by itself, eliminate the need for customer contributions.

It is clear that, taken as a whole, section 6.3 of the Code (including the sections referenced above) provides that in almost all cases where the transmitter is enhancing its equipment to accommodate the needs of a line connection, a capital contribution will be required from the customer or customers who benefit from the enhancement.

The qualified exception appearing in section 6.3.6 of the Code allows a customer to avoid a contribution where an enhancement has been "otherwise planned" by the transmitter to address system needs identified by the transmitter. The kind of plan that can operate to unseat the typical requirement for a capital contribution will be discussed more fully below, but it is in the Board's view that it cannot be a "plan" that is created primarily at the request of a connecting customer. To permit such a "plan" to displace the general requirement for capital contributions would be to completely ignore the thrust of section 6.3 as a whole, and to perversely make what is clearly expressed as an exception to the rule.

Section 6.3.6 of the Code is an expression of the concept that an individual customer ought not to bear any unique responsibility for projects within established plans for things such as additions or improvements to the system for reliability and integrity improvements which have been already identified and planned for by the transmitter, except for any additional costs associated with the advancement of the improvements at the request of that customer.

This structure is an expression of another key concept which underpins the Code. That principle is that the system should grow and be reinforced and enhanced in a planned and cost effective manner. This means that the transmitter needs to develop, in concert with other responsible agencies, an orderly and “right-sized” approach to system growth and reinforcement.

Where an individual customer has a pressing local requirement, which does not form part of a planned reinforcement, or which requires an advancement of a planned enhancement, the Code provides for a method to impose, in a manner that is fair to all of the competing interests, an appropriate capital contribution. In this way the “user-pay” and cost causality principle can be implemented in a manner that permits expansion of the system, but discourages overbuild. Those responsible for unplanned reinforcements must bear some responsibility for the costs associated with such projects. This addresses concerns raised by AMPCO that transmitters may take advantage of the absence of a capital contribution requirement to expand their respective asset bases excessively.

#### Distinguishing Between Plans – Customer Driven versus System Needs

The Board agrees with the submissions by Hydro One and the CLD that there can be ambiguity with respect to whether an enhancement of the system is one which is designed primarily to address system integrity and reliability issues as identified by the transmitter, on the one hand, and those which are primarily of benefit to one or a small group of customers who have a pressing local need, on the other. In the one case, the Code would not require capital contributions, in the other it would.

That ambiguity is most easily resolved where the transmitter can demonstrate that the enhancement was identified as part of its planning process and not merely because a customer has requested it. To be clear, where planning involves joint studies between Hydro One and one or more distributor(s) to meet different timing and supply needs such as load growth, the Board views such plans as customer-driven, where a capital contribution would be required.

In the Board’s view this means that, to qualify for the exception to the general rule, a project must be encompassed in a plan that has been developed by the transmitter substantially independent of customer request. This does not preclude an appropriate

level of discourse between the Transmitter and affected customers in order to ensure the accuracy of the plan.

Each of the other transmitters that made submissions in relation to this issue recognized that an integral part of their undertaking involves the establishment by the transmitter of plans that address load growth identified by the transmitter in its ongoing planning process, together with system reliability and safety requirements. Integrating load growth projections, reliability and safety needs is at the heart of the transmitter's planning process. It is the product of that activity that can give rise to the exception contained in section 6.3.6 of the Code.

Whether the plan meets the criteria giving rise to the exception in any given case is a matter of evidence to be considered by the Board on a case-by-case basis.

The key feature of a plan giving rise to the exception is the extent to which it addresses system reliability and integrity concerns which arise from the utility's assessment of projected load growth and not the requirements of a specific customer or customers within a local area.

The plan should demonstrate that the projects embedded in it are designed to have a long term positive effect on system reliability and integrity.

The plan should contain significant detail respecting the needs being addressed, the equipment associated with the various elements of the projects, and the implementation timetable.

Perhaps most importantly, the plan should incorporate the input from other responsible agencies such as the IESO and the OPA and should be reflected in the planning documents produced by Hydro One and these agencies.

#### Filing Requirements for Project Justification

The Board reminds transmitters that they are obliged to present evidence of their approach to capital contribution in every case, whether it intends to seek a contribution from a customer or not. The extent to which the criteria outlined above are met in a given case is to be determined by the Board Panel considering it. A consideration is necessary whether the transmitter is requiring a connecting customer to make a

contribution or not. The Board Panel will have to determine if the transmitter has assessed the situation appropriately, and whether the exception under section 6.3.6 is relevant to the case at hand.

In addition to this obligation, the transmitter should, as part of good utility practice, ensure that its approach to the requirement for capital contribution is made known to affected customers at the earliest possible time, so that customers can assess for themselves the appropriateness of the transmitter's position on the issue. Customers may want to contest the transmitter's approach in any given case, and may also want to make provision for the contingency that the transmitter's position is rejected by the Board in the context of an LTC proceeding.

The transmitter may also have to defend its approach in the course of a revenue requirement proceeding. If the transmitter has failed to secure a capital contribution where it should have, it may be required to account for its failure to do so.

Once a determination has been made that a capital contribution is required, it is necessary to consider the appropriate amount of that contribution. As noted earlier, section 6.5 of the Code provides a mechanistic approach to the calculation of the contribution. Other sections of the Code provide guidance as to how the appropriate amount is to be arrived at.

First, section 6.3.5 stipulates that a customer's contribution will not in the normal course be used to support any construction of or modifications to the transmitter's network facilities. Second, section 6.3.8 limits the capital contribution to the costs of the enhancement project that are genuinely and exclusively directed to meeting the customer's needs. A customer may not be asked to support modifications that are made in anticipation of future load growth, not attributable to that customer.

#### Cost Treatment of Unique Transmission Reinforcements

By necessary implication, it follows that where a transmitter's plans require installation of unique system elements as part of the proposed reinforcement of the connection facilities, some adjustment to the cost responsibility can be, and should be made.

These unique system elements in some instances accommodate loads that are beyond a customer's requirement (e.g., autotransformers connecting the 230 kV transmission

system to the 115 kV transmission system), or provide material additional system reliability and integrity improvements (e.g., additional lightning arresters in areas exposed to frequent storm activities). In other situations, unique system elements may be needed to deal with narrow rights of way where expensive underground cables may be needed instead of less expensive overhead transmission lines. The amount of capital contribution required in such cases should be reduced to reflect these special circumstances and to attribute an appropriate portion of the costs to the customer involved. In particular, use of autotransformers is seen as a means to optimize use of the transmission system as a whole in accommodating new loads safely and reliably and, most of all, in a timely manner. Similarly, the additional costs of placing transmission assets underground should not be attributed to a customer, unless that requirement forms part of that customer's stated requirement. The Board expects that these types of special circumstances would be addressed by transmitters in either leave to construct applications under section 92 of the Act, or in transmission rate applications in relation to "capital project expenditures".

The Board agrees with Board staff's submission that section 6.7.2 of the Code provides that, where a connection facility is retired, a transmitter shall not recover from a customer a capital contribution to replace the connection facility. This provision can be applied in various situations to reduce the transmission connection reinforcement costs that are attributable to a customer. For instance, if a transmission connection reinforcement calls for the dismantling of a 115 kV connection facility and construction of a 230 kV connection line to meet load growth at one or more delivery points, the attributable cost to the customer(s) should reflect this approach. Thus, the cost of the new 230 kV connection line should be reduced by deducting an amount to reflect the replacement cost of a new 115 KV transmission line, with appropriate adjustment to deal with timing differences between the expected dismantling date of the 115 kV transmission line, and the in-service date of the new 230 kV replacement.

In conclusion, such additional costs described above (e.g., costs of autotransformers or the difference in cost between underground and overhead transmission that go beyond the customer's need), should be recovered through the line connection pool, provided, of course, that the transmitter can demonstrate that it has acted prudently in incurring them.

### Distributors Ability to Manage Capital Contribution

EDA and the CLD expressed a concern that electricity distribution companies may not be in a position to pass the costs of capital contributions along to their customers appropriately.

There are two elements to this issue.

First, there is an issue as to when the capital contribution could be recovered in rates. To the electricity distributor, the capital contribution is current expense. In the incentive rate mechanism format that the Board has adopted for the electricity distribution sector, the only opportunity for the recognition of such contributions occurs when a distributor makes a forward test year based cost of service application.

Under the current plan electricity distributors will be allocated a specific time for their respective rebasing applications. Applications for rebasing will be filed by approximately one-third of the distributors in each of 2007, 2008, and 2009 for 2008, 2009 and 2010 rates respectively. Where an electricity distributor has made a capital contribution and considers that it needs to recover it sooner than the current schedule would provide for, it should make application to the Board to advance its rebasing. The prudence review of the costs associated with the contribution will include a review of the appropriateness of the amount, in light of the findings set out in this Decision and Order, and any other relevant factors, unless a Board panel has otherwise explicitly approved it in another proceeding..

The OPA has raised the second issue associated with the recovery of the expense arising from a capital cost contribution. It concerns the incentive that is created for an industrial or commercial consumer to locate its facilities within an electricity distributor's service area, so as to avoid exposure to a capital contribution requirement. According to the OPA, the incentive arises because the electricity distributor will bear that exposure, and that distributor cannot under the DSC allocate the costs associated with the contribution to the industrial customer, whose need may be the underlying reason for the enhancement.

The Board notes that a distributor is obligated to connect any customer to its distribution system subject to the technical and financial requirements established by the DSC. The DSC, like the TSC, requires the distributor to conduct an economic evaluation, and

where appropriate to recover any shortfall by means of a capital contribution. The Board notes that Chapter 11 of the 2006 Electricity Distribution Rate Handbook has provisions for cost recovery of “a charge that is a flow-through of third party costs” (page 111). This provision was included to allow for the pass through and recovery of actual costs from a customer for work done by a third party associated with distribution system services not reflected in either the distribution rates or other Specific Service Charges. By implication, a distributor might be able to justify the collection from a customer for “third party” costs relating to any “transmission classed assets” such as “feeder positions” inside a transformer station, or reinforcement of a transmission connection asset. This would require specific justification at the time of the distributor’s rebasing application. If this circumstance proves to create dysfunction the Board will address it in due course.

#### Implications for Current Leave to Construct Projects

As noted above, Hydro One has applied its interpretation of section 6.3.6 of the Code in relation to two projects that are the subject of Leave to Construct applications that are currently before the Board. Based on this Decision and Order, it appears that a capital contribution from the customers would have been required in both of those cases.

The ultimate disposition of the two Leave to Construct applications rests with the Panels that have been assigned to them. In this Panel’s view, however, given that the issue of the interpretation of section 6.3.6 of the Code is only now being resolved through this Decision and Order, it would be inequitable to require a capital contribution for a project which has been completed or which is advanced to a point where parties have very clear expectations as to their respective responsibilities. To reach back now to require the customer to pay when the project has been presented as not requiring any such contribution would, in this Panel’s view, be unfair. The customer had a right to know at the time of its engagement the full extent of its financial responsibility. To unwind these arrangements now could create significant difficulty and embarrassment for affected parties. Plans and projections involving diverse interests will have been made that may be difficult or impossible to recast.

Hydro One’s interpretation of section 6.3.6 of the Code is not one adopted by the other transmitters, nor is it one that is without a fairly high degree of complexity and artifice. However, whatever the Board may think of the relative merits of Hydro One’s interpretation, this Panel believes that it would be inappropriate for the customers in the

two Leave to Construct applications, or Hydro One, to now bear the consequences of that interpretation being disapproved of in this Decision and Order.

### Implications for the Cambridge Preston Transformer Station Project

The Cambridge Preston Transformer Station (“TS”) project (250 MVA 230 -115 kV autotransformers) was reviewed by the Board in the context of Hydro One’s transmission revenue requirement proceeding (EB-2006-0501). Based on its interpretation of section 6.3.6 of the Code, Hydro One did not propose to require a capital contribution from the customer for this project. In its Decision and Order dated August 16, 2007 in that proceeding (EB-2006-0501), the Board noted that the appropriate interpretation of the Code regarding capital contributions is being considered in the context of this combined proceeding, and that the Board’s decision in this proceeding will provide the necessary clarification. The Board concluded that Hydro One should establish a deferral account to be used if the Board’s decision in this combined proceeding is such that a capital contribution should be required for this project.

The Board recognizes that the reinforcement facilities in the Cambridge Preston TS project are defined as a “Local Loop”, which is classified according to the Code as a network investment. The issue of classification of “Local Loops” was discussed by the Board in its June 8, 2004 Policy Decision issued on the context of the Transmission System Code review (RP 2002 0120). Specifically, paragraphs 3 and 4 of section 6.12.1 of that Policy Decision states in part as follows: in paragraph 3: *“The Board is of the opinion that this classification issue (local loops) should be addressed in a proceeding prior to or at the next cost allocation and rate design proceeding.”*; and in paragraph 4: *“In the interim, the Board finds that the “Local Loops” are Network assets”*. In the context of Hydro One’s transmission rates proceeding, the Board accepted a settlement which resulted in classifying the Cambridge Preston TS facilities as “connection facilities”.

This reclassification of the “Local Loops” as connection facilities impacts the Cambridge Preston TS Project with regard to the requirement for an economic evaluation and capital contribution from the distributors, whose load growth is the trigger for the need for the project. The four distributors are Cambridge & North Dumfries Hydro, Guelph Hydro Electric Systems Inc., Kitchener-Wilmot Hydro Inc. and Waterloo North Hydro Inc.

The Board is of the view that, given that the original classification by Hydro One of the facilities as “network” was carried out correctly according to the direction set out in the Board’s June 8, 2004 Policy Decision (EB-2004-0120) at the time negotiations were concluded with the four distributors, the Board should not require the transmitter to revisit this project to require a capital contribution now. Therefore, the Board is also of the view that a deferral account to deal with this issue is not required.

### **3.6 CONNECTION AND COST RECOVERY AGREEMENT**

#### **3.6.1 Temporary Bypass**

Board staff challenged the template for the load version of the CCRA with respect to its provisions addressing temporary bypass situations. Temporary bypass situations arise where customers, in contravention of their respective connection agreements, transfer load from the transmitter’s facilities to other, typically customer-owned, facilities. The effect of these events is to deny the transmitter revenues which ought to be flowing from the customer for as long as the bypass is in place. Typically, upon discovery of the bypass, the customer transfers load back to the transmitter-owned facility, ending the bypass condition. The Code makes provision for dealing with permanent bypass situations, but does not directly address these temporary bypass cases. Board staff particularly points to the prohibition contained in the Code respecting minimum payment provisions to support its position that the recovery method outlined below and mandated by the CCRA template is in violation of the Code.

The disputed provision of the CCRA provides for a recovery by Hydro One which is directly related to the revenue it has lost as a result of the temporary bypass. The CCRA introduces a table which identifies the amount of revenue associated with the connection that is lost during the kind of temporary bypass it is intended to address. Board staff contends that the remedy available to Hydro One is limited to whatever adjustments arise as a result of the true-up process. Board staff asserts that the Code, while not addressing temporary bypass situations per se, prohibits the lost revenue based approach, which would be mandated by the CCRA template.

For its part, Hydro One asserts that the approach to recover the lost revenues is reasonable and protects the interests of all transmission customers. The Board agrees.

It is the Board's view that the prohibition against minimum payment provisions is not brought into play in temporary bypass situations. The prohibition was intended to protect customers from charges which were not explicitly supported by identified customer-driven cost consequences or other customer-related obligations, such as those which may arise as the result of a breach of contract. In the case of temporary bypass the system as a whole is negatively impacted. It would be inappropriate to burden the system when the cause of the diminished revenue can be so clearly attributed to a particular unauthorized breach of a contractual obligation by a particular customer. In the Board's view, it is important that customers bear the costs associated with their actions, and that the system as a whole does not become a backstop for inappropriate bypass activity. The method of recovery contemplated by the CCRA is a reasonable approach to the problem provided that in situations where an existing contract provides for a truing up mechanism, there would be a review to ensure that the customer involved would not be subject to another compensatory payment. This can occur since the temporary shifting of load would be detected by the truing up mechanism which adjusts for reduction in load.

### **3.6.2 CCRA Negotiations – Unusual Events**

Section 29 of the Standard Terms and Conditions of the load version of the CCRA provides that if any of the transmission service rates are rescinded, or the methodology under which those rates are derived is materially changed, the parties agree to negotiate a new mechanism for the purposes of the CCRA.

Board staff submits that, to the extent that this provision contemplates that true-ups will be calculated based on transmission service rates that are different from those that were used to carry out the initial economic evaluation, the provision is inconsistent with the Code. Specifically, Board staff contends that section 6.5.4 of the Code requires that for true-up calculations the transmitter must use the same methodology used to carry out the initial economic evaluation and the same inputs except for load.

Hydro One submits that the intent of section 29 of the CCRA is to provide a mechanism to address material changes in ratemaking methodology and to allow the parties to negotiate appropriate adjustments to the contract. The Hydro One submission makes it clear that this provision is not intended to operate in circumstances where there are simple changes to rates, but rather would only apply if the Board developed a significantly different rate structure, based on different charge determinants such that

the current line connection, transformation connection, or network pool charges were no longer genuinely applicable.

It is the Board's view that Hydro One's position has merit. The Board notes that the provision is bilateral, and would require the active participation of the transmission customer to have effect. The transmitter cannot act unilaterally to impose a new architecture for the economic evaluation and true-up processes.

The Board finds that this section of the CCRA does not contradict the Code and can stand.

### **3.6.3 CCRA Amendments Agreed to by Hydro One**

Board staff raised a number of other issues respecting the conformity of the CCRA template with the Code. Specifically, items 12, 14, 16, 17, 18, 19, 21, and 24 of Board staff's submissions dated January 26, 2007 suggested amendments to the template, which Hydro One has agreed to implement in its reply argument dated February 23, 2007. The Board will require Hydro One to make changes to the template to address the Board staff submissions.

Item 12 of Board staff's submissions proposes clarifications to the load version of the CCRA to ensure that it is clear that, in the event of an inconsistency, the provisions of the subsequent Connection Agreement govern over those of the CCRA. Board staff's submissions also noted that there appears to be no rationale for including in the CCRA provisions that appear to have application only to the period that would already be covered by the Connection Agreement.

Item 14 of Board staff's submissions notes that it should be clear that the transmitter's obligations under the Code apply equally during the period in which the CCRA is in force, to the extent that those obligations are applicable to activities conducted during that period, and also notes that the "Entire Agreement" clause in the CCRA calls this into question.

Item 16 of Board staff's submissions proposes that the CCRA be amended to include a general provision to indicate that in the event of an inconsistency between the Code and any provisions of the CCRA, the Code governs.

Item 17 of Board staff's submissions identifies a need for clarification of the intention and implications of section 14.2 (c) of the CCRA (load version), having regard to costs associated with work that is the subject-matter of Compliance Bulletin 200606.

Item 18 of Board staff's submissions notes that the dispute resolution provisions of the Standard Terms and Conditions of the CCRA differ from those of the CCP and do not in all cases allow a right of the parties to seek resolution of a dispute by the Board.

Item 19 of Board staff's submissions notes an inconsistency between the CCRA and section 12.1.3 of the Code in relation to the prohibition on ceasing or slowing the pace of work when a dispute arises.

Item 21 of Board staff's submissions proposes that the CCRA be amended to contemplate that amendments to it may be required as a result of amendments that the Board may require Hydro One to make to its CCP or as a result of amendments to the Code.

Item 24 of Board staff's submissions notes the need for consistency in CCRA references to the Code, and in particular as capturing in all cases amendments to the Code that may be made from time to time.

#### **3.6.4 Assigned Capacity Calculation**

The Board notes a contradiction between the provisions in the Code for calculation of "assigned capacity" set out in section 6.2 (in particular section 6.2.2) and the methodology detailed in the CCRA including the table and associated notes on page 6 as well as section 28 of the Standard Terms and Conditions of CCRA which addresses the issue.

Specifically, section 6.2.2 of the Code prescribes the manner in which a load customer's assigned capacity is to be determined. The calculation is based on the customer's highest three-month average peak load over a specified period. Where the Code refers to the concept of "existing load" (in the context of bypass), that concept in turn refers to the customer's assigned capacity. Hydro One's CCRA describes how "existing load" is to be determined, which is the basis for determining assigned capacity as well as the baseline for bypass purposes where no economic evaluation was done. The calculation is performed as follows: (i) calculate a Peak Load Index ("PLI"), which is defined as the average of the monthly peaks divided by the annual peak; (ii) establish an average for

the PLI over the most recent three years; and (iii) multiply the 3-year average PLI times the existing load to establish an “Annual Average Monthly Peak Load”. The Annual Average Monthly Peak Load is the load that must be maintained on any “Existing Facility “ for the purpose of determining bypass compensation.

The Board finds that the above methodology for determining the baseline for bypass compensation purposes is inconsistent with the methodology for determining assigned capacity (and thus “existing load”) for that purpose as set out in the Code. The Board therefore requires that Hydro One amend all relevant sections of the CCRA to ensure that the provisions of sections 6.2.2 and other relevant parts of section 6.2 of the Code are reflected in the CCRA.

### **3.7 REQUIRED CLARIFICATIONS IN THE CUSTOMER CONNECTION PROCEDURES**

Hydro One’s response to a number of Board staff interrogatories and its reply submission are viewed by the Board as helpful to all participants, and therefore requires Hydro One to amend the CCP to reflect the following clarifications.

#### Available Capacity

The first clarification appears in Hydro One’s response to Board staff Interrogatory No. 7, which clarifies the relationship between the CCRA and the connection agreement. The second clarification appears in the response to Board staff Interrogatory No. 9 which clarifies the intent of step 6.2 of the CCP indicating that the relevant target for measurement and cancellation is the additional capacity amount which has been requested and is available to the customer for 1 year pursuant to section 6.6.2 (b) of the Code..

#### Economic Evaluation

Hydro One’s response to Board staff Interrogatory No. 18 addresses the question of when network revenues and costs should be part of the economic evaluation, and the Board considers it useful and appropriate to include this explanation in section 2.5 of the CCP.

Hydro One’s response to Board staff Interrogatory No. 19 clarified that interest cost will only be included during the construction phase i.e., in the “allowance for funds during construction”, and that no interest will be included as a cost element in economic

evaluation past the in-service date. The Board requires that such clarification be included in the revised CCP.

Hydro One's response to Board staff Interrogatory No. 20 provided a more informative description of the two financial models used for evaluation of financial risks of companies when no bond rating is available – the Altman Z-score model and the Kaplan-Urwitz model. The Board requires that the revised CCP include this more complete description of the two models.

Hydro One's response to Board staff Interrogatory No. 21 indicated its willingness to clarify the applicability of the true-up payments. The Board supports this clarification and requires Hydro One to replace the fourth paragraph of page 36 of the CCP (section 2.5 ) with the following paragraph proposed by Hydro One:

“Where analysis shows that the customer has transferred assigned capacity from an existing Hydro One owned connection facility already serving the customer to the new connection facility, which is the subject of the economic evaluation, the customer's actual load for true-up purposes, will be reduced in proportion to the amount transferred. The updated load forecast will also be reduced to eliminate any transferred load. If there is a shortfall, Hydro One will then require the customer to remit a payment to make up the shortfall, adjusted appropriately to reflect the time value of money and net of any previous true-up payments made.”

### Contestability

Hydro One's response to Board staff Interrogatory No. 26 regarding clarification of applicability of “Direct” and “Indirect” overheads in the CCP document, is viewed as helpful to a connecting customer. The CCP reference is in Section 2.6, Option 1, pages 42 and 43.

The Board therefore requires that Hydro One amend the language used to describe the elements of overhead (direct and indirect overheads) on both pages 42 and 43, by the language used in Hydro One's response to Board staff Interrogatory No. 26. This will require that all direct and indirect overheads need to be added to capital costs of connection facilities for services rendered.

The Board notes that Hydro One's reply to paragraph 6 of Board staff's submissions, which addressed "Transfer Price" and the definition of direct overheads materially added clarity to this aspect. The Board therefore requires that Hydro One amend its CCP under Section 2.6, Option 2, page 43 (paragraph 2, second sentence) by inserting the clarification in Hydro One's reply submission including using the term "project-specific costs" instead of "project-specific overheads".

### Dispute Resolution

The Board notes that the proposed CCP does not expressly address the situation where Hydro One would initiate a dispute, and that Hydro One's response to Board staff Interrogatory No. 30 clarified the situation. The Board therefore requires that Hydro One amend its CCP, Section 2.8, pages 48-50, to reflect Hydro One's response to Board staff Interrogatory No.30 indicating that the same procedure would apply where Hydro One has initiated a dispute.

The Board notes that the proposed CCP was not clear as to whether the date by which an offer to settle may be provided is determined by Hydro One or by mutual agreement of the parties. Hydro One's response to Board staff Interrogatory No. 32 clarified this aspect. The Board therefore requires that Hydro One amend its CCP under Section 2.8, Discovery of Facts, page 49, to reflect Hydro One's response to Board staff Interrogatory No. 32. This will provide for the establishment of the date for the provision of the offer to settle by mutual agreement.

The Board notes that the proposed CCP adopts the arbitration provisions of the Connection Agreement, but it was not clear whether Hydro One intended to make arbitration decisions or minutes of settlement available to the public. Hydro One clarified that it intends to do so in its response to Board staff interrogatory No. 34. The Board therefore requires that the CCP, Section 2.8 titled " Negotiated Settlement", page 50, paragraph (b), be amended to reflect Hydro One's response to Board staff Interrogatory No. 34 which indicated that its intention is to make arbitration decisions and minutes of settlement available to the public as per sections 17.5.7 and 17.5.12 of the Connection Agreement.

#### **4. CUSTOMER CONNECTION PROCEDURES (CCP) – GREAT LAKES POWER LIMITED**

The reply submission by GLPL dated February 23, 2007 responded to the various submissions by intervenors and Board staff by submitting an amended connection procedures document entitled “Customer Connections Process”, as well as amended CCRA templates. These documents addressed and resolved a number of issues. What follows is a consideration of the issues which remain outstanding.

##### **4.1 DISPUTE RESOLUTION**

The dispute resolution provisions of GLPL’s CCP under section 2.4.1 of “Procedure 8” are silent as to the retention of dispute-related records by GLPL. The Board expects transmitters to retain records of connection-related disputes. Those records must be filed with the Board upon request, and the Board expects GLPL to ensure that connecting parties understand that this is the case.

##### **4.2 CONNECTION AND COST RECOVERY AGREEMENT (CCRA)**

The Board notes that section 20.1 of GLPL’s CCRA appears to apply to disputes regarding the allocation of costs. The Board encourages GLPL to review this provision in light of the dispute resolution provisions of its CCP included in Section 2.4.1 to ensure that there is no inconsistency or likelihood of confusion for connecting parties regarding the scope and reach of this section of the CCRA.

##### **4.3 REQUIRED CLARIFICATIONS**

###### Customer Impact

The Board notes that GLPL’s CCP requires the connecting applicant to agree to pay for both the customer impact assessment (“CIA”) study (carried out by GLPL) and the system impact assessment (“SIA”) study (carried out by the IESO). The Board notes that it is critical to explicitly recognize that due to this arrangement, GLPL will not invoice the IESO for any amounts attributable to GLPL carrying out studies related to the SIA since this could lead to double-charging the connection customer. Therefore, the Board requires that GLPL amend its CCP under Step 2, Sections 2.4.2 and 2.4.3, page 7 to clearly state that GLPL will not invoice the IESO for any costs related to SIA studies or

activities. This will assure all parties (IESO and connecting customers) that there is no double charging for SIA-related studies.

### Economic Evaluation

GLPL's response to Board staff Interrogatory No. 23 provided a good description of the two financial models used for evaluation of financial risks of companies when no bond rating is available – the Altman Z-score model and the Kaplan-Urwitz model. The Board requires GLPL to revise its CCP under Procedure P5, pages 39-42, to include the description of these two models as detailed in GLPL's response to Board staff Interrogatory No. 23.

### Dispute Resolution

The Board notes that the CCP is not clear on whether the effect of section 2.4.1 is that arbitration is the only form of dispute resolution available to the parties where a party has failed to comply with the terms of a settlement referred to in section 2.2.3 (pre-arbitration settlement) or 2.6.9 (settlement during arbitration).

The Board notes that GLPL's response to Board staff Interrogatory No. 29 clarifies this, and therefore requires that Section 2.4.1 of the CCP be amended to reflect the response contained in GLPL's response to Board staff Interrogatory No. 29.

### CCRA

The Board agrees with and requires that GLPL implement its proposed amendments to its CCRA submitted on February 23, 2007 to address the following paragraphs of Board staff's submissions: (i) paragraph 9 (to address possibility of inconsistency between the CCRA and the Connection Agreement); (ii) paragraph 12 (to eliminate reference to the obligation to amend the Connection Agreement); (iii) paragraph 15 (to clarify that the CCRA is subject to changes that the Board may require to be made to the connection procedures); and (iv) paragraph 17 (definitions).

#### 4.4 REQUIRED CORRECTIONS TO THE CUSTOMER CONNECTION PROCEDURES

The Board notes that there are two minor corrections that need to be made to the revised CCP which was submitted to the Board on February 23, 2007

The first relates to GLPL's reply submission, Section 6.2, Tab B, Procedure P5 - Economic Evaluation, Section 6.2, page 44, last line. The word "not" is not stricken out but it should be.

The relevant paragraph as proposed by GLPL is:

- 6.2 *"where facilities are transferred to GLPL for contestable work, the capital cost of the contestable work which will be equal to the transfer price which includes any direct costs and overheads GLPL incurred as part of providing design technical requirements and specifications and to manage the project including inspection, testing and commissioning costs not billed to the Load Connection Applicant."*

The same paragraph after correction should read:

- 6.2 *"where facilities are transferred to GLPL for contestable work, the capital cost of the contestable work which will be equal to the transfer price which includes any direct costs and overheads GLPL incurred as part of providing design technical requirements and specifications and to manage the project including inspection, testing and commissioning costs ~~not~~ billed to the Load Connection Applicant."*

The second relates to GLPL's reply submission, Section 6.2, Tab B, Procedure P6 – Contestability Procedures, Subsection 5.5.4, page 50, last line. Once again, the word "not" is not stricken out but it should be.

The relevant paragraph as proposed by GLPL is:

- 5.5.4 the capital cost of the contestable work will be equal to the transfer price which includes any direct costs and overheads GLPL incurred as part of providing design technical requirements and specifications and to manage the project including inspection, testing and commissioning costs not billed to the Connection Applicant; and

The same paragraph after correction should read:

- 5.5.4 *the capital cost of the contestable work will be equal to the transfer price which includes any direct costs and overheads GLPL incurred as part of providing design technical requirements and specifications and to manage the project including inspection, testing and commissioning costs ~~not~~ billed to the Connection Applicant; and*

## 5. COST AWARDS

Three parties have been determined by the Board to be eligible for cost awards in this proceeding. The three parties are: AMPCO; APPrO; and ECAO.

As was communicated previously, Hydro One and GLPL will be ordered to pay the cost awards for this proceeding.

The schedule for the cost awards process is set out below. Following the completion of that process, the Board will issue a separate decision and order on cost awards for this proceeding.

### **THE BOARD THEREFORE ORDERS THAT:**

1. Hydro One Networks Inc. shall revise its document entitled “Transmission Connection Procedures”, filed on August 18, 2006, in accordance with the findings of the Board as set out in this Decision and Order. The revised “Transmission Connection Procedures” shall be filed with the Board for review and approval, and delivered to all intervenors in this proceeding, no later than Friday, October 12, 2007.
2. Hydro One Networks Inc. shall revise its Connection and Cost Recovery Agreement templates, filed in response to interrogatories in this proceeding, in accordance with the findings of the Board as set out in this Decision and Order. The revised templates shall be filed with the Board, and delivered to all intervenors in this proceeding, no later than Friday, October 12, 2007.
3. Great Lakes Power Limited shall revise its document entitled “Customer Connections Process”, filed on February 23, 2007, in accordance with the findings of

the Board as set out in this Decision and Order. The revised “Customer Connections Process” shall be filed with the Board for review and approval, and delivered to all intervenors in this proceeding, no later than Friday, October 12, 2007.

4. Great Lakes Power Limited shall revise its Connection and Cost Recovery Agreement templates, filed on February 23, 2007, in accordance with the findings of the Board as set out in this Decision and Order. The revised templates shall be filed with the Board, and delivered to all intervenors in this proceeding, no later than Friday, October 12, 2007.
5. The Association of Major Power Consumers in Ontario, the Association of Power Producers of Ontario, and the Electrical Contractors Association of Ontario shall submit their cost claims by **September 28, 2007**. A copy of the cost claim must be filed with the Board and one copy is to be served on both Hydro One Networks Inc. and Great Lakes Power Limited. The cost claims must be done in accordance with section 10 of the Board's Practice Direction on Cost Awards.
6. Hydro One Networks Inc. and Great Lakes Power Limited will have until **October 12, 2007** to object to any aspect of the costs claimed. A copy of the objection must be filed with the Board and one copy must be served on the party against whose claim the objection is being made.
7. The party whose cost claim was objected to will have until **October 19, 2007** to make a reply submission as to why their cost claim should be allowed. Again, a copy of the submission must be filed with the Board and one copy is to be served on both Hydro One Networks Inc. and Great Lakes Power Limited.
8. Hydro One Networks Inc. and Great Lakes Power Limited shall pay the Board's costs of, and incidental to, this proceeding immediately upon receipt of the Board invoice.

DATED at Toronto, September 6, 2007

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli  
Board Secretary