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# **Great Lakes Power Limited – Transmission Customer Connections Process**

**August 20, 2006**

**(Incorporates OEB's September 6, 2007 Requirements)**

*Great Lakes Power Limited ("GLPL") advises that this document reflects the changes made in the Transmission System Code dated July 25, 2005 that came into force on August 20, 2005 as published in the Ontario Gazette; however, the provisions contained herein are subject to change and may be revised to reflect any applicable decision or order rendered by the Ontario Energy Board.*

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### Process Steps – Introduction

This GLPL Customer Connection Process (CCP) has been developed to meet the requirements of the revised Ontario Energy Board's (the "Board") Transmission System Code (the "Code") dated July 25, 2005 (which came into force August 20, 2005) as outlined in the Code section 6 CUSTOMER CONNECTIONS. In particular, the CCP covers the requirements listed in Section 6.1.4.

- 6.1.4 A transmitter's connection procedures referred to in section 6.1.3 shall include the following:
- (a) a procedure for determining the **total normal supply capacity** of a connection facility as required by section 6.2.7;
  - (b) an **available capacity** procedure that complies with section 6.2.11;
  - (c) a **security deposit** procedure that complies with section 6.3.11;
  - (d) a **customer impact assessment** procedure that complies with section 6.4.1;
  - (e) an **economic evaluation** procedure that complies with section 6.5.2;
  - (f) a **contestability** procedure that complies with section 6.6.2;
  - (g) a **reconnection procedure** that complies with section 6.10.3;
  - (h) a **dispute resolution** procedure that complies with section 12.1.1;
  - (i) an obligation on the transmitter to provide a customer with the most **recent version of the plans** required by section 6.3.6 that cover the applicable portion of its transmission system;
  - (j) a **schedule of all charges and fees** that may be charged by the transmitter and that are not covered by the transmitter's Rate Order; and
  - (k) **reasonable timelines** within which activities covered by the procedures referred to in paragraphs (a) to (g) and (i) must be completed by the transmitter or the customer, as applicable, including typical construction times for facilities.

This detailed GLPL CCP covers the processing of requests from customers for a new connection or for a modification to an existing connection to GLPL's transmission system. This procedure is consistent with and complementary to the IESO's Market Rules and the IESO's market procedures as they relate to connection.

The detailed IESO procedure Customer Assessment and Approval ("CAA") process is documented in Market Manual 2: Market Administration Part 2.10: Connection Assessment and Approval. This can be found on the IESO website at [www.ieso.ca](http://www.ieso.ca). The IESO CAA process is a separate process from GLPL's CCP; however, GLPL works closely with the IESO on customer

## **GLPL Customer Connection Process**

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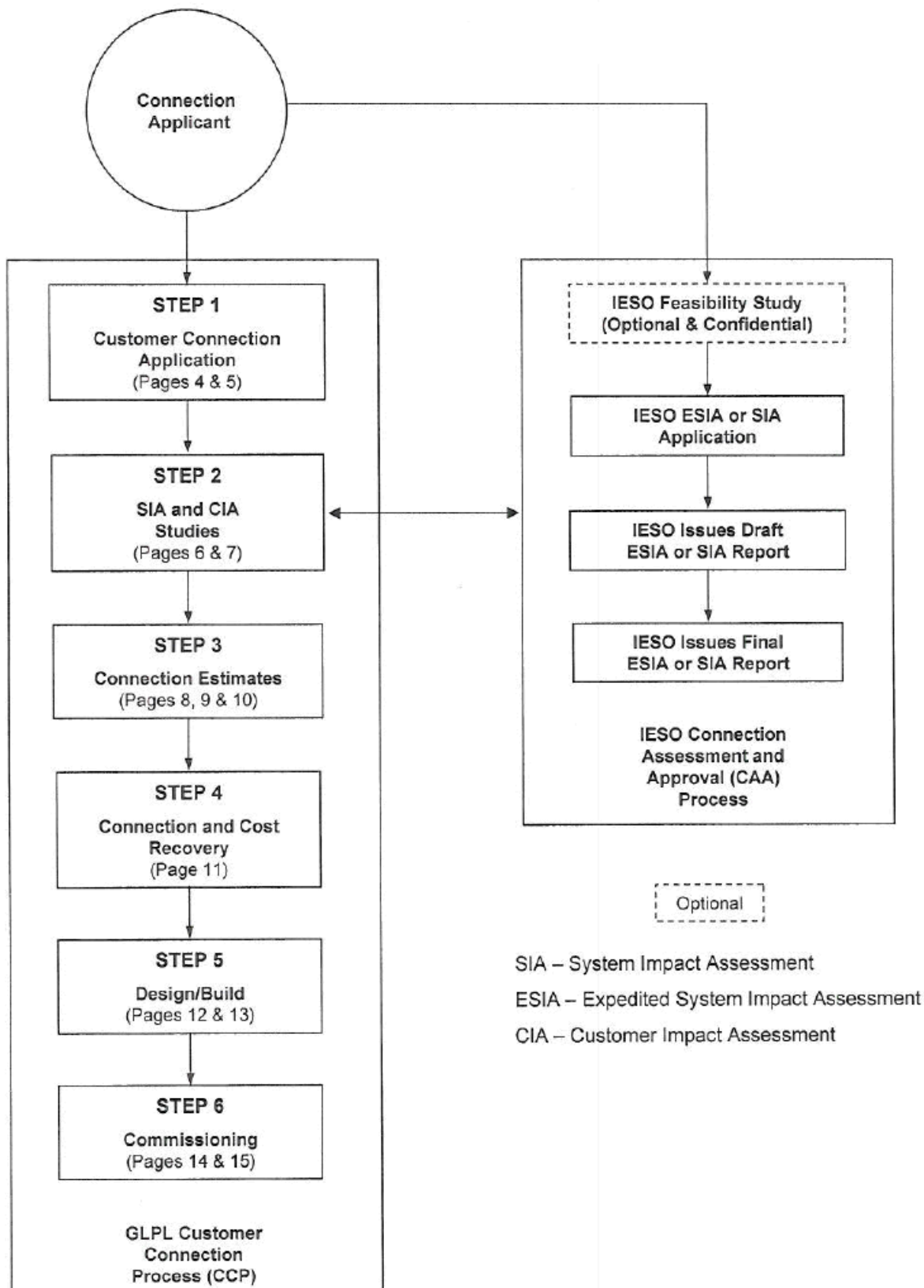
connections. Although the IESO process is briefly noted in Process Step 2, it is for information only and the Connecting Customer must refer to the IESO CAA process document.

The Connection Applicant must apply directly to the IESO and the IESO will generally involve the Transmitter in the CAA process. However, **it is important for the Connection Applicant to register with GLPL by completing a Customer Connection Application** in order to ensure compliance with Market Rules and the Code, to estimate the transmitters cost and to schedule the transmitter resources needed to complete the connection to GLPL's transmission system.

GLPL's CCP is outlined in Flowchart 1 on the next page. This GLPL CCP document, when approved by the Board, will be available on GLPL's website [www.glp.on.ca](http://www.glp.on.ca).

# GLPL Customer Connection Process

FLOWCHART 1 – GREAT LAKES POWER LIMITED – TRANSMISSION (GLPL) CUSTOMER CONNECTION PROCESS (CCP)



# **GLPL Customer Connection Process**

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## **1 Step 1 – Customer Connection Application**

### **1.1 Introduction**

The Connection Applicant will complete the Customer Connection Application Form to initiate the Customer Connection Process with GLPL. A single consultation meeting between GLPL and the Connection Applicant, at no cost to the Connection Applicant, will occur to clarify the scope of the project and to provide the Connection Applicant with relevant information including the following:

- a single line diagram illustrating the transmission facilities in the area;
- equipment ratings and their available capacity to incorporate the proposed connection
- information on approved transmission projects in the area that may impact the connection;
- an assessment of whether the proposed connection materially impacts GLPL's transmission system based on IESO criteria for an Expedited System Impact Assessment; and
- an overview of GLPL's Customer Connections Process (CCP).

The consultation meeting will not provide any opinion or information on:

- site assessment;
- detailed cost estimates;
- commitment on constructability; or
- commitment to cost or in-service date.

### **1.2 Customer Connection Application Procedure**

- 1.2.1 The Connection Applicant requests a new or modified connection to GLPL's transmission system. The Customer Connection Application Form can be downloaded from GLPL's website [www.glp.on.ca](http://www.glp.on.ca).
- 1.2.2 The Connection Applicant will complete the Customer Connection Application to provide GLPL with initial information about their new or modified facilities prior to the consultation meeting.
- 1.2.3 GLPL and the Connection Applicant will meet to discuss the Customer Connection Application as outlined in section 1.1 above. GLPL will be prepared to discuss transmission system in the vicinity of the proposed connection, to identify any issues related to the Connection Applicants proposal and to provide the Connection Applicant with information on any pertinent transmission projects in the area that are part of GLPL's transmission plans (refer to Appendix 3 in this document).
- 1.2.4 The Connection Applicant will provide missing information or clarification of submitted information to GLPL upon request. If specific information cannot be provided, GLPL

## **GLPL Customer Connection Process**

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may propose suitable typical values to be used in GLPL's CCP Procedures – P4 – Customer Impact Assessment (CIA). It is the responsibility of the Connection Applicant to ensure that its facility that is later installed have values that are acceptable to the Transmitter and the IESO.

- 1.2.5 Following the consultation meeting, the Connection Applicant must inform GLPL in writing if they want to proceed with GLPL's Customer Connection Process Step 2 – SIA and CIA Studies or if they want to modify or withdraw the Customer Connection Application.

## **GLPL Customer Connection Process**

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### **2 Step 2 – SIA and CIA Studies**

#### **2.1 Introduction**

The IESO's System Impact Assessment (SIA) and GLPL's Customer Impact Assessment (CIA) are linked in this step of GLPL's CCP. Some of the work GLPL performs is common to both assessments and the results of the SIA are an important input to the CIA process.

#### **2.2 IESO System Impact Assessment (SIA)**

The Connection Applicant must apply to the IESO as described in the IESO's Connection Assessment and Approval (CAA) process documented in the IESO's Market Manual 2: Market Administration Part 2.10: Connection Assessment and Approval. This can be found on the IESO website at [www.ieso.ca](http://www.ieso.ca).

The process consists of an optional (confidential) Feasibility Study and an Expedited System Impact Assessment ("ESIA") or a System Impact Assessment ("SIA"). GLPL is involved in both the ESIA and SIA.

#### **2.3 GLPL Customer Impact Assessment (CIA)**

Section 6.4 of the Code requires GLPL to carry out a CIA for any proposed new or modified connection:

- i. which is subject to the IESO's CAA process and requires a System Impact Assessment (SIA); or
- ii. where GLPL determines that the connection may have an impact on existing customers.

If the IESO determines an Expedited SIA (no formal study) is sufficient then a CIA is not required unless GLPL determines there is an impact on the existing transmission customers. If a CIA is not performed, GLPL will be required to notify all customers in the vicinity of the connection, advising them of the proposed connection work and the fact that it has no negative impact and that no specific CIA study will be completed.

The Connection Applicant may wish to sign a SIA/CIA Agreement with GLPL before the SIA is conducted by the IESO. The SIA/CIA Agreement will cover GLPL's work associated with the IESO ESIA/SIA and GLPL CIA which will include determining the impact on short circuit levels, facility ratings, neighbouring customers and adequacy of the transmission system facilities at the connection point and in the vicinity.

However, it is not advisable to proceed with the actual CIA work until after the final SIA report is issued by the IESO. In some cases the Connection Applicant may request the CIA to be conducted after the IESO issues the draft SIA report. However, if the CIA needs to be revised because of the final SIA report, GLPL will require additional time to revise the CIA report at the Connection Applicant's expense.



## **GLPL Customer Connection Process**

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### **2.4 SIA and CIA Procedure**

- 2.4.1 The Connection Applicant applies to the IESO as per the IESO CAA process and may request a confidential IESO Feasibility Study, an ESIA or a SIA. If a confidential Feasibility Study is requested, the IESO issues it to the Connection Applicant without involving GLPL.
- 2.4.2 The Connection Applicant requests GLPL to prepare an SIA/CIA Agreement which will allow GLPL to recover its costs associated with the SIA and CIA. GLPL will not invoice the IESO for any amounts attributable to GLPL carrying out studies related to the SIA as it relates to this section 2.4.2 and section 2.4.3.
- 2.4.3 GLPL and the Connection Applicant will execute a SIA/CIA Agreement to cover the following:
- i. the SIA and CIA study scopes including schedule and reporting format;
  - ii. the provision of additional data that was not supplied with the Customer Connection Application submitted in Step 1;
  - iii. the SIA and CIA study estimated cost, deposit, invoicing and payment schedule and method;
  - iv. the deposit and payment of the study cost based on the payment schedule in the SIA/CIA Agreement; and
  - v. confidentiality and information sharing.
- 2.4.4 Connection Applicant proceeds with an IESO SIA or ESIA.
- 2.4.5 The IESO will issue a draft SIA report to the Connection Applicant and GLPL for review prior to finalizing the report.
- 2.4.6 The IESO issues a final ESIA or SIA report.
- 2.4.7 The Connection Applicant requests GLPL in writing to conduct the CIA as described in CCP Procedures P4 – Customer Impact Assessment (CIA) Procedure and based on GLPL confirming the connection requires a CIA study.
- 2.4.8 The final SIA/CIA Agreement invoice is sent to the Connection Applicant. Connection Applicant remits final payment to the transmitter for completion of services.

# **GLPL Customer Connection Process**

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## **3 Step 3 – Connection Estimates**

### **3.1 Introduction**

The Connection Estimates phase provides the Connection Applicant with initial estimates (+/- 20%) of GLPL's facilities required for connection, including an economic evaluation of the financial contribution requirements or cost sharing arrangement of the proposed incorporation of facilities as per section 3.2 below for Load Connections or as per section 3.3 below for Generator Connections. The transmission system requirements identified in the IESO System Impact Assessment (SIA) and GLPL Customer Impact Assessment (CIA) will be included in the estimate scope.

### **3.2 Load Connections**

When a Load Connection Applicant requests a connection in writing from GLPL, GLPL shall provide (at no cost to the Connection Applicant) if required, a description of the work that is contestable and the work that is noncontestable as per CCP – Procedures P6 – Contestability Procedure (Load Customers), initial estimates of capital costs as per the Code section 6.6.2 (b) and the calculation of any capital contribution as per CCP – Procedures – P5 Economic Evaluation Procedure (Load Customers). Estimate preparation costs will be charged to Load Customers for preparation of subsequent estimates or to increase the estimate accuracy level from the initial +/- 20%.

### **3.3 Generator Connections**

When a Generator Connection Applicant requests a connection in writing from GLPL, GLPL will provide at cost to the Connection Applicant estimates of the capital cost of the modification to transmitter-owned connection facilities. The Generator will pay for the fully allocated cost of the minimum design required to meet the Connection Applicant's needs as per the Code section 6.5.1 if the Connection Applicant proceeds with the connection.

### **3.4 Connection Estimate Procedure:**

3.4.1 The Connection Applicant requests in writing to GLPL that connection estimates be prepared and, for Load Connection Applicants, that the CCP – Procedures P5 – Economic Evaluation Procedure (Load Customer) be completed to determine the Capital Contribution required by the Connection Applicant.

In the written request, the Load Connection Applicant must indicate specifically what it is requesting to be estimated based on the following:

- i. GLPL will provide an estimate of costs to modify its existing connection facilities based on the Connection Applicant designing (based on GLPL specifications), constructing and owning the new or modified connection assets external to GLPL's existing facilities,

and/or

## **GLPL Customer Connection Process**

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- ii. GLPL will provide an estimate of costs based on GLPL designing, constructing and owning the connection assets with the Connection Applicant maintaining the right to do the detailed design and construction of all the contestable work if it so chooses and transferring the connection assets to GLPL.
- 3.4.2 GLPL will implement the CCP – Procedures P6 – Contestability Procedure (Load Customers) if the Load Connection Applicant requests estimates based on 3.4.1 ii to determine which work is contestable and which is noncontestable.
- 3.4.3 GLPL identifies the Connection Applicant information required to initiate preparation of connection estimates. The required information is identified below:
  - i. connection requirements that describe proposed connection interface:
    - general arrangement and site plan;
    - single line diagram showing all equipment specifications, proposed connection to GLPL's system, protection elements and main isolating devices;
    - equipment, protection and operating philosophy and tripping matrix;
  - ii. estimate Scope of Work information requirements;
  - iii. estimate accuracy requirements – Note: Initial estimate accuracy will be +/- 20%;  
and
  - iv. high level project schedule indicating target in-service date.
- 3.4.4 A "Scope" meeting with the Connection Applicant is held to review / clarify the connection requirements, estimate scope of work, estimate accuracy level and to draft a Connection Estimate Agreement ("CEA") (developed based on the CCP Agreement Template). The Connection Applicant will provide an electronic copy and two paper sets of the electrical package / connection requirements identified in section 3.4.3 above at least five working days ahead of the "Scope" meeting.
- 3.4.5 GLPL will review the Connection Applicant's submitted electrical package / connections requirements for the connection interface. If there are changes required to the connection interface, GLPL will convey the changes to the Connection Applicant who will make the changes and submit the revised electrical package / connection requirements.
- 3.4.6 GLPL will prepare the final CEA for signatures and submit it to the Connection Applicant for approval. This agreement describes scope of work, estimate accuracy and schedule of preparing the estimates plus any costs to be recovered from the Connection Applicants if applicable.
- 3.4.7 The Connection Applicant will approve the CEA, agree to the CEA terms and conditions, and remit any required deposit in accordance with the Agreement.
- 3.4.8 GLPL will prepare the estimates for the cost of connection and network facilities associated with the new or modified connection. These estimates will be based on a planning specification developed by GLPL after review of the Customer's Electrical Design Package, SIA and CIA.

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- 3.4.9 GLPL will determine the cost responsibility for the new or modified connection facilities based on the Code section 6.3 for a Generator Connection Applicant and the Code section 6.3 along with the CCP – Procedures – P5 Economic Evaluation Procedure (Load Customers) for a Load Connection Applicant.
- 3.4.10 GLPL submits to the Load Connection Applicant the connection estimate and/or capital contribution calculation – plus, if requested by a Load Connection Applicant, a description of what work is contestable and noncontestable to the Connection Applicant.
- 3.4.11 The Connection Applicant reviews the connection estimates and decides whether to proceed with the proposed connection project or whether additional project work or information is required. GLPL will provide any project revisions and additional information at the Connection Applicant’s expense with the process starting again at 3.4.1 in this step.
- 3.4.12 Subject to 3.4.10 above, before proceeding with the connection Step 4 of this CCP a Load Connection Applicant must select one of the following three options (if not already selected) regarding the construction and ownership of the contestable elements of the new or modified connection facilities. Refer to CCP – Procedures P6 – Contestability Procedure (Load Customers) for responsibilities for technical design and construction requirements.
- i. GLPL built and owned (pool funded)
  - ii. Connection Applicant built and transferred to GLPL (pool funded)
  - iii. Connection Applicant built and owned (not pool funded)
- 3.4.13 The Load Connection Applicant indicates to GLPL in writing the option it selected in section 3.4.12 above. GLPL will then use the appropriate estimates as inputs to the CCP – Procedures P5 – Economic Evaluation Procedure (Load Customers) for determining the Load Connection Applicant’s capital contribution.
- 3.4.14 For a Generator Connection Applicant, the estimates will be used to calculate the fully allocated cost of the minimum design required to meet the Connection Applicant’s needs as per the Code section 6.5.1, which the Generator Connection Applicant is required to pay.
- 3.4.15 GLPL prepares and submits the final CEA invoice to the Connection Applicant where applicable. The Connection Applicant receives the final invoice and remits the final payment.

## **GLPL Customer Connection Process**

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### **4 Step 4 – Connection and Cost Recovery**

#### **4.1 Introduction**

This step involves negotiating a Connection and Cost Recovery Agreement (CCRA) to expedite critical path project work, negotiating a Connection Agreement required under the Code and obtaining the necessary OEB, IESO, Environmental Assessment (EA), Ontario Electrical Safety Authority (OESA) and other authorities' approvals required for connection. Prior to proceeding with the CCRA Procedure below the following two pre-requisites must have been completed:

- i. Conditional approval from the IESO for the new or modified connection
- ii. Completion of the Steps 1, 2 and 3 as outlined in this GLPL CCP

#### **4.2 CCRA Procedure:**

- 4.2.1 The Connection Applicant requests to proceed with the new connection to the IESO-controlled grid or modification to an existing connection. The request shall be in writing including a statement from the Load Connection Applicant that confirms their choice as per Step 3 – Connection Estimates Section 3.4.13.
- 4.2.2 Based on the agreed scope of work and costs, a Connection and Cost Recovery Agreement (CCRA) is negotiated. GLPL will provide separate CCRA Templates for Load Connection Applicants and Generator Connection Applicants. The CCRA documents the security deposit that is required based on CCP – Procedures – P3 Security Deposit Procedure. The CCRA will also form the basis for amending an existing Connection Agreement or developing a new Connection Agreement with the Connection Applicant.
- 4.2.3 The Connection Applicant returns a signed copy of the CCRA to GLPL by the execution date including forwarding the security deposit to GLPL as specified in the CCRA. GLPL will then fully execute the CCRA by signing the agreement. Full execution of the CCRA will allow GLPL to proceed with detailed design, ordering long lead time equipment and necessary approvals, rights, permits and licences.
- 4.2.4 The Connection Applicant and GLPL each acquire the necessary regulatory approvals and other permits required for construction. These approvals may include environmental assessment (EA) approvals from the Ministry of the Environment, Section 92 approvals from the OEB as required, ESA plan approvals, easements/property rights, etc.
- 4.2.5 Modifications to the connection proposal that result from any regulatory permits or approvals must be reviewed by the IESO and GLPL to assess whether the SIA requires an addendum, whether the CIA requires revision and/or the Connection Estimates require updating.
- 4.2.6 The Connection Agreement and associated schedules that must be completed are provided in the Code in Appendix 1 Version A – Form of Connection Agreement for Load Connection Applicants or Version B – Form of Connection Agreement for Generator Connection Applicants. It is noted that the Connection Agreement must be fully executed before the customer's facilities are commissioned and placed in-service.

# **GLPL Customer Connection Process**

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## **5 Step 5 – Design & Build**

### **5.1 Introduction**

This is the longest stage in GLPL's CCP with its duration depending on the complexity of the project. Major activities include review/approval of Connection Applicant/GLPL connection design, drawings and work plan, acquisition of equipment, easements/property and actual design/build of Connection Applicant facilities, GLPL connection facilities and if required GLPL network facilities.

GLPL normally contracts the detailed design and construction of new or modified facilities through a competitive tendering process although this stage can sometimes be undertaken by GLPL if the work on GLPL facilities does not entail significant work and or the installation of significant new equipment.

### **5.2 Design & Build Procedure:**

5.2.1 The Connection Applicant and GLPL award their respective work to their applicable contractors.

5.2.2 The details of the connection requirements, standards, milestones and deliverables are confirmed between the Connection Applicant and GLPL based on the CCRA. The connection interface requirements are especially critical and agreement should be obtained on the detailed design, as soon as practical, on the following

i. Interfaces (detailed specifications required)

- line tap to station entrance structures
- switchyard modifications including breaker upgrades, if required
- protection changes to Transmitter' terminal stations and others
- teleprotection
- SCADA functionality and telemetry quantities
- telecommunications
- outage and other operations requirements

ii. Interface Milestone Schedule

- Establish milestones for agreed project interface activities and designate responsibilities. These milestones are to be incorporated into the overall project schedule and the CCRA dates should be confirmed or if necessary updated.

5.2.3 The Connection Applicant and GLPL proceed to the detailed design phase. The Connection Applicant prepares and submits the Connection Interface Documents in packages as described in detail in the CCRA. The Connection Applicant must ensure that all required documents for each package is provided in a complete and timely manner or the CCRA scheduled dates may have to be changed, as GLPL's review usually cannot begin until the receipt of all documents within a given package. Requests for review of documents provided by the Connection Applicant in partial packages will increase the Connection Applicant's costs for GLPL's design review. GLPL's target is to provide

## **GLPL Customer Connection Process**

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- comments from the design review to the Connection Applicant within two weeks of receiving each complete document package.
- 5.2.4 Based on the comments from GLPL's design review the Connection Applicant revises the affected Connection Interface Documents and submits revised documents to GLPL for final review before commission starts. The later in the project the revised documents are sent for the final review the more likely changes will be required during the construction of the facilities as a result of any further GLPL comments.
  - 5.2.5 The applicable contractors for the Connection Applicant and for GLPL procure the necessary equipment and materials, obtain the necessary easements/property and receive the necessary construction approvals and permits.
  - 5.2.6 The applicable contractors for the Connection Applicant and for GLPL proceed to construct the required customer connection facilities as proposed in the CCRA including modification or additions to GLPL's network facilities.
  - 5.2.7 The applicable contractors for the Connection Applicant and for GLPL will develop an integrated outage plan which lists all outages that will directly affect GLPL's transmission system. GLPL will arrange to inform directly affected customers about the outage plan to ensure existing customers are informed of the impacts of outages related to the new connection and have an opportunity to provide input to the outage plan.
  - 5.2.8 The Connection Applicant and GLPL complete the IESO Facility Registration process for their respective new or modified facilities. The Connection Applicant's IESO Facility Registration forms are also used as part of the Connection Agreement to be negotiated between the Connection Applicant and GLPL.
  - 5.2.9 The Connection Applicant and GLPL negotiate the Connection Agreement as defined in the Code Appendix 1 including the Connection Applicant providing GLPL with all the information required for the Connection Agreement schedules.
  - 5.2.10 The Connection Applicant and GLPL sign the Connection Agreement prior to commissioning. The Connection Applicant sends a copy of the signed Connection Agreement to the IESO.

## **GLPL Customer Connection Process**

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### **6 Step 6 – Commissioning**

#### **6.1 Introduction**

New or modified customer connections require thorough inspection, testing and commissioning to mitigate the potential for new and modified facilities to adversely affect the performance of GLPL's transmission system. Inspection, testing and commissioning are carried out on both the customer and GLPL new or modified facilities.

GLPL reserves the right to be a participant in the inspection, testing and witnessing of commissioning of the customer built facilities and to recover its costs from the customer for these activities as per the Code Appendix 1 Section 28.2.1.

#### **6.2 Commissioning Procedure:**

- 6.2.1 The Connection Applicant and its commissioning agent develops a commissioning plan (includes inspection, testing and commissioning activities) for all customer built facilities that is to be reviewed and commented on by GLPL. A list of potential inspection, testing and commissioning requirements that may be used to guide the customer commissioning agent will be provided by GLPL on request. The commissioning plan must be submitted to GLPL for review no later than 30 business days (Code Appendix 1 Schedule E section 1.7.4) prior to beginning commissioning tests. Failure to comply with this timeline could delay the project in-service date.
- 6.2.2 Based on the commissioning plan GLPL will inform the Connection Applicant and its commissioning agent regarding which parts of the commissioning plan that GLPL will participate in by having its staff present at the Connection Applicant's facilities to witness the commissioning.
- 6.2.3 The Connection Applicant and its commissioning agent perform and complete all commissioning activities on the Connection Applicant-owned facilities. At completion of these activities, the Connection Applicant's commissioning agent completes and signs the appropriate Confirmation of Verification Evidence Report (COVER) Form provided by GLPL. Failure to comply with the connection requirements or to pass the required commissioning and verification checks will result in non-connection of the facilities until after any outstanding issues are resolved. These documents are to be forwarded to GLPL prior to the in-service of the Connection Applicant's facilities.
- 6.2.4 The Connection Applicant must provide copies of all commissioning reports for all the new or modified equipment being placed in-service and listed in the Connection Agreement.
- 6.2.5 Transfer of Connection Applicant built facilities to GLPL based on a Load Connection Applicant's election in Step 3 – Connection Estimates section 3.4.13. The transfer price is to be the lesser of the Connection Applicant's actual cost or GLPL's reasonable cost to do the same work as per the Code Section 6.6.2 (g).
- 6.2.6 GLPL facilities are commissioned. GLPL's commissioning coordinator/agent completes a Field Report of Equipment In-Service (REIS) Form(s) for GLPL's facilities including any



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- transferred facilities documented in section 6.2.5 above. The completed form(s) are to be forwarded to GLPL.
- 6.2.7 GLPL contractor(s) for the GLPL constructed facilities will complete the Transfer of Control Form(s) and the Connection Applicant's contractor(s) for facilities transferred in section 6.2.5 above will complete a Transfer of Control Form(s) provided by GLPL. The completed form(s) are to be forwarded to GLPL.
- 6.2.8 The Connection Applicant will forward a copy of the IESO's New Facility Notification Form which indicates the customer facilities are approved for connection by the IESO to GLPL.
- 6.2.9 GLPL will inform the IESO the equipment is ready for service based on the documents provided in sections 6.2.2, 6.2.3, 6.2.6, 6.2.7 and 6.2.8 in this procedure plus a Report for Connecting Customer Equipment (RCCE) completed by GLPL's commissioning coordinator/agent.
- 6.2.10 When all the documentation has been provided to GLPL, GLPL's facilities and the Connection Applicant's facilities can be placed in-service and the witness on potential checks and on load checks can be completed. The Connection Applicant's Commissioning Agent completes and signs the appropriate Confirmation of Verification Evidence Report (COVER) provided by GLPL. The completed form(s) are to be forwarded to GLPL.
- 6.2.11 GLPL for a Load Connection Applicant will update the economic evaluation based on the actual capital costs of the work completed and owned by GLPL. GLPL will provide the Load Connection Applicant with the revised economic evaluation including an invoice to the Load Connection Applicant or refund depending on the revised capital contribution required as per the Code section 6.5.2.
- 6.2.12 GLPL will provide a Generator Connection Applicant with a final invoice or credit based on the actual capital costs.
- 6.2.13 The Connection Applicant will submit to GLPL the final as built Interface Connection Documents as per the CCRA.
- 6.2.14 The CCRA and Connection Agreement are managed for the life of the contracts. This includes monitoring the factors that are used to manage "true-up" payments for Load Connection Applicants as per the Code sections 6.5.3 to 6.5.11 and as per the CCRA. GLPL shall provide a refund to the Load Connection Applicant if capacity is assigned to another load customer within five years of the date on which the connection facility comes into service (Code section 6.2.24) and as per the CCRA.

**Procedure P1**

**Total Normal Supply Capacity Procedure  
(Load Customers)**

**P1 – Total Normal Supply Capacity Procedure (Load Customers)**

**1 Introduction**

This Appendix has been prepared based on the intent of the revised Code dated July 25, 2005 section 6.2.7. It outlines the procedure GLPL will use for establishing the total normal supply capacity of existing transformation or line connection assets for use in calculating Available Capacity as outlined in CCP Procedures – P2 – Available Capacity Procedure (Load Customers).

**2 TNSC – Line Connection Assets**

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| <b>Individual Line Connection Asset – Normal Supply Capacity (NSC)</b>   |
| Summer Rating – MW capacity assuming a 90% power factor and based on the actual continuous design rating for the line. |
| Winter Rating – MW capacity assuming a 90% power factor and based on the actual continuous design rating for the line. |

Where a connection element is not normally operated in parallel the total normal supply capacity (TNSC) will be the NSC of the individual element.

Once the individual NSC of all the line connection elements is identified, the TNSC will be based on the following where there are lines normally operated in parallel:

Number of line elements (n) in parallel minus one (1) multiplied by the line rating with the lowest NSC.

$$(n-1) \times \text{lowest NSC} = \text{TNSC}$$

This is based on the principle of allowing for the loss of one element without exceeding NSC rating on the remaining line connection element(s) that are normally operated in parallel.

The exception to the above is where the maximum load that can be supplied while meeting acceptable voltage levels as established by GLPL for a single line element or for n-1 elements for lines operated in parallel is less than the TNSC calculated as above.

**3 TNSC – Transformation Connection Assets**

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|--|
| <b>Individual Transformation Connection Asset – Normal Supply Capacity (NSC)</b>   |
| Summer Rating – Nameplate Rating with full cooling. In addition to NSC some transformers will also have a 10 day limited time rating (10day-LTR) calculated. |
| Winter Rating – Nameplate Rating with full cooling. In addition to NSC some transformers will also have a 10 day limited time rating (10day-LTR) calculated. |

Where a transformation connection element is not normally operated in parallel the TNSC will be the NSC of the individual transformer not the 10day-LTR.

Once the individual NSC of all the transformation connection elements is identified, the TNSC will be based on the following where there are transformers normally operated in parallel:

Number of transformer elements (n) in parallel minus one (1) multiplied by the lowest 10day-LTR if the transformers have LTR ratings otherwise the lowest NSC.

$$(n-1) \times \text{lowest 10day-LTR (or lowest NSC)} = \text{TNSC}$$

This is based on the principle of allowing for the loss of one element without exceeding the 10day-LTR (or NSC) rating on the remaining transformer(s) that are normally operated in parallel.

**4 TNSC – Information to Customers**

GLPL will provide applicable TNSC information to load customers as part of the CCP Procedures – P6 – Available Capacity Procedure (load customers).

**5 TNSC – Maintaining Data**

GLPL will update the TNSC for connection facilities as required due to changes, additions and removal of facilities. The updated values will be reviewed to see if there is a need to trigger the CCP Procedures – P6 – Available Capacity Procedure (Load Customers). GLPL reserves the right to change the TSNC value of a connection facility where new information impacting that value becomes known.

**Procedure P2**

**Available Capacity Procedure  
(Load Customers)**

**P2 – Available Capacity Procedure (Load Customers)****1 Introduction**

This Appendix has been prepared based on the intent of the revised Code dated July 25, 2005 section 6.2 AVAILABLE CAPACITY which outlines for transmitters how to calculate available capacity and how to assign available capacity. It applies to line and transformation connection facilities as defined in the Code sections 2.0.39 and 2.0.60.

GLPL will not assign available capacity on any of its network facilities as defined in the Code section 2.0.45. GLPL will not assign available capacity on its connection facilities as defined in the Code section 2.0.13, for back-up purposes (Code section 6.2.1).

**2 Implementation – Available Capacity Procedure**

**2.1** GLPL shall implement this Available Capacity Procedure when: (Code sections 6.2.11 or 6.2.26).

- (a) the available capacity on a connection facility is reduced to 25% or less of the total normal supply capacity of that connection facility; or
- (b) a load customer requests supply capacity on a connection facility that would reduce the available capacity on that connection facility to 25% or less of the total normal supply capacity of that connection facility; or
- (c) a load customer requests the available capacity on a connection facility

**2.2** Where there is more than one application for available capacity on the applicable connection facility based on demonstrated need (refer to section 4 in this procedure), the available capacity will be assigned to the relevant load customers in proportion to their respective needs (Code section 6.2.12 (e)).

**3 Implementation – Expansion Study**

**3.1** GLPL shall ensure that there is sufficient available capacity on its connection facility to satisfy: (Code section 6.2.5)

- (a) the capacity entitlement of each load customer on that connection facility, determined in accordance with the Code section 6.2.4; and
- (b) the assigned capacity and the contracted capacity of all load customers in relation to that connection facility at the relevant time.

**3.2** GLPL shall conduct an Expansion Study when GLPL considers it necessary to ensure that there is sufficient available capacity on GLPL's facility to meet the obligations in section 3.1. The Expansion Study will include reviewing if provision of new supply capacity is best accomplished by means of an increase in capacity of an existing connection facility or the construction of a new connection facility.

- 3.3** When conducting an Expansion Study GLPL shall notify, in writing, all load customers served or that GLPL knows are expected to be served by the existing or new connection facility. (Code section 6.2.14). Where a new connection facility is proposed under the Code section 6.2.14, GLPL shall use best efforts to notify all load customers served by existing connection facilities adjacent to the proposed new connection facility. (Code section 6.2.15) The GLPL letter to all load customers shall contain the information documented in sections 9.7.2 to 9.7.6 in this procedure plus the following additional information:
- 3.3.1 the reason GLPL is conducting the Expansion Study at this time and the time table for completion of the Expansion Study;
  - 3.3.2 the right of load customers served by existing adjacent connection facilities to apply to reconfigure their respective load as described in the Code section 6.2.15; and
  - 3.3.3 the load customer is to indicate if they are proposing to reconfigure load including the details of the reconfiguration.
- 3.4** GLPL shall post on its website a notice of its proposal to carry out an expansion study and of the right of load customers served by existing adjacent connection facilities to apply to reconfigure their respective load as described in the Code section 6.15.
- 3.5** GLPL will initiate the following steps of section 9 in this procedure so the total normal supply capacity (section 9.3), individual customer assigned capacity (section 9.4), total assigned capacity (section 9.4) and available capacity (section 9.5) can all be re-calculated based on any load customer(s) requests for additional assigned capacity and/or requests for load reconfiguration.
- 3.6** If a load customer applies to GLPL to reconfigure load to the proposed new connection facility, GLPL shall negotiate in good faith with the customer to determine the terms and conditions that will govern the reconfiguration. Where GLPL receives applications from load customers in circumstances where the applications cannot all be accommodated by GLPL, GLPL shall nonetheless negotiate in good faith with all such customers to determine the terms and conditions that will govern the reconfiguration, and shall then reconfigure the load of each load customer with whom it has successfully negotiated such terms and conditions in proportion to its assigned capacity or contracted capacity. (Code section 6.2.15)
- 3.7** GLPL will update the available capacity on the connection facilities and assigned capacity for each customer taking into consideration any reconfigured customer load.
- 3.8** GLPL will determine the timing of any need to undertake further work on the Expansion Study with the affected Customers due to insufficient available capacity in existing facilities after completing 3.6 in this procedure.
- 3.9** Upon completion of an Expansion Study, GLPL shall advise all affected load customers of the available capacity on all relevant existing and new connection facilities before and after the expansion (Code section 6.2.16) while respecting the confidentiality provisions

of the Code section 6.2.27 and 4.7.1. Before disclosing the available capacity on a connection facility that serves only one customer, GLPL must first obtain the consent of that customer. Where such consent cannot be obtained, GLPL must request guidance from the Board. (Code section 6.2.27)

#### **4 Demonstrated Customer Need for Assigned Capacity**

**4.1** Subject to section 2.2 in this procedure, GLPL shall assign available capacity on a connection facility to load customers on a first-come first-served basis. GLPL shall not assign capacity to a load customer unless the customer has demonstrated its need for available capacity in accordance with the requirements of GLPL listed below as required by the Code section 6.2.12 (d): (Code section 6.2.10)

4.1.1 the customer shall provide all the data in its written request for available and/or assigned capacity as detailed in section 9.2 of this procedure;

4.1.2 the customer's five year forecast must be in line with their historical usage otherwise additional information must be provided re: specific expansion plans (such as a business plan);

4.1.3 the customer shall provide supporting documentation for their load forecast under a cover letter signed by an officer of the customer;

4.1.4 the customer's expansion plan is in line with their historical performance, sector performance and the general economic outlook for the Province of Ontario; and

4.1.5 the customer must identify all government and regulatory issues related to its request for available capacity or assigned capacity.

**4.2** These obligations shall apply whether or not implementation of the available capacity procedure is required by section 2.1 of this procedure. (Code section 6.2.10)

#### **5 Determination of Customer Assigned Capacity**

##### **5.1 Load Customer's Assigned Capacity**

The load customer's assigned capacity in relation to a connection facility shall be equal to the aggregate of: (Code section 6.2.2)

- (a) the customer's highest rolling three-month average peak load under normal operating conditions:
  - i. in the most recent five years, where the determination of the customer's assigned capacity is made after May 1, 2007, or
  - ii. since May 1, 2002, where the determination of the customer's assigned capacity is made on or before May 1, 2007; and



- (b) any available capacity that has been assigned to the customer and that has not yet been taken up by the customer nor cancelled by the transmitter under section 7 in this procedure.

If a load customer's facility has been connected to the connection facility for a period of less than five years, for purposes of determining the customer's assigned capacity GLPL shall use the customer's highest rolling three-month average peak load in the year or years during which the customer's facility has been connected to the connection facility. Where GLPL reasonably believes that a customer is manipulating its load for the purpose of the determination of its assigned capacity, GLPL may request that the Board review and re-determine that assigned capacity.

## **5.2 Load Customer's Contracted Capacity**

Where an economic evaluation, including an economic evaluation referred to in the Code section 6.2.24, 6.3.9 or 6.3.17, was conducted by GLPL for a load customer in relation to a connection facility on the basis of a load forecast, that customer's contracted capacity shall, during the economic evaluation period to which the economic evaluation relates, be equal to the load identified in that load forecast or in any subsequent forecast used for purposes of giving effect to the true-up provisions of the Code section 6.5. (Code Section 6.2.3)

A load customer with contracted capacity on a connection facility shall, in any year, be entitled to capacity in an amount that is equal to: (Code section 6.2.4)

- (a) the amount of capacity for that year as specified in the applicable load forecast referred to in the paragraph above; or
- (b) the customer's assigned capacity for that year,

whichever is greater.

## **6 Assignment of Capacity by GLPL**

- 6.1** Where a load customer requests an assignment of capacity on a connection facility, GLPL shall determine the available capacity of that connection facility (Code section 6.2.8).
- 6.2** Where GLPL assigns capacity on a connection facility to itself (in its capacity as a customer) or to a load customer that is an affiliate of GLPL, GLPL shall give notice of such assignment to all other customers served by the connection facility regardless of whether such assignment triggers implementation of this available capacity procedure (Code section 6.2.13).
- 6.3** Where available capacity is assigned to a load customer in relation to a connection facility and the customer has a connection agreement, the contracted capacity and load shape shall be specified in the connection agreement (Code section 6.2.17).

- 6.4** Subject to section 7.1 in this procedure, available capacity that has been assigned to a load customer in relation to a connection facility may not, without the consent of the customer, be reassigned by GLPL nor be reassigned by the customer except, in connection with a change in ownership of the facilities to which the assigned capacity relates. GLPL shall, upon request, reassign assigned capacity as required to reflect such change in ownership (Code section 6.2.18).
- 6.5** Upon request, GLPL shall assign available capacity on a GLPL-owned connection facility to serve an existing load customer's load unless GLPL can demonstrate that the available capacity will not meet the customer's needs. (Code section 6.2.22)
- 6.6** When a load customer provides its own connection facilities to serve new load, GLPL shall not assign capacity on the relevant GLPL-owned connection facilities to that customer in relation to that new load (Code section 6.2.23).
- 6.7** Similar to the TNSC, available capacity and assigned capacity will be specified in units of MW assuming a power factor of 90% unless otherwise noted.

## **7 Cancellation of Assigned Capacity by GLPL**

- 7.1** Subject to section 7.2 below, where available capacity on a connection facility has been assigned to a load customer by GLPL, and that capacity has not been taken up by the customer within one year of the assignment (except where that capacity is included in a load forecast referred to in the Code section 6.2.3), GLPL shall: (Code section 6.2.19)
- (a) cancel the assignment;
  - (b) treat such capacity as available capacity; and
  - (c) notify all other load customers whose facilities are served by that connection facility of the cancellation of the assignment.

The one-year period continues to run regardless of any change in the ownership of the facility to which the assigned capacity relates or of any reassignment of the assigned capacity as a result of that change in ownership.

- 7.2** A load customer may request that GLPL extend the one-year period referred to in section 7.1 above where circumstances warrant, such as where the customer is constructing new facilities that require more than one year to come into service. GLPL shall not unreasonably deny such a request. Where GLPL denies such a request, the customer may apply to the Board for an order requiring GLPL to extend the one-year period. (Code section 6.2.20)
- 7.3** Where GLPL extends the one-year period referred to in section 7.1 above in relation to itself (in its capacity as a customer) or a load customer that is an affiliate of GLPL, GLPL shall give notice of such extension to all other load customers served by the applicable connection facility. (Code section 6.2.21)

**8 Monitoring of GLPL Connection Facilities for Available Capacity**

- 8.1** GLPL shall from time to time as required monitor the available capacity on its connection facilities (Code section 6.2.9) which may involve determining the total assigned capacity on a connection facility (Code section 6.2.6) and determining available capacity on a connection facility (Code section 6.2.7).
- 8.2** On an ongoing basis GLPL will monitor the actual loading on its connection facilities by analyzing available data which will indicate the loading on each connection facility. When a peak load reading on a connection facility is greater than 75% of the total normal supply capacity of the connection facility/facilities GLPL will implement this Available Capacity Procedure as per section 2 in this procedure.
- 8.3** GLPL will maintain a listing of all GLPL connection facilities including the present total normal supply capacity of the connection facilities and the peak load each year on the connection facilities. When the Available Capacity Procedure is implemented and completed, GLPL will maintain the report which documents individual customer assigned capacity including supporting data, total normal supply capacity of the connection facilities involved and available capacity of the connection facilities.

**9 Available Capacity Procedure**

- 9.1** The Available Capacity Procedure is initiated (refer to section 2 in this procedure) either by a load customer requesting supply capacity or available capacity on a connection facility or by GLPL when the available capacity is reduced to 25% or less. Where GLPL initiates the Available Capacity Procedure the process will start at section 9.3 below.
- 9.2** The load customer(s) shall request assigned capacity on a connection facility or request available capacity on a connection facility in writing to GLPL. The Customer Connection Application Form shall also be completed when requesting supply capacity for new load. As part of the written request the customer will also provide:
- 9.2.1** the load customer's load forecast for the next 5 years in a format as specified in GLPL's Load Forecast Form; and
- 9.2.2** amount of assigned capacity requested.

The load customer's written request shall be signed by an officer of the customer.

- 9.3** GLPL will review the total normal supply capacity (TNSC) as per CCP – Procedures P1 – Total Normal Supply Capacity Procedure (Load Customers) and confirm the present TNSC of the facilities to be studied.
- 9.4** GLPL will calculate the total assigned capacity on the connection facility including if applicable any additional capacity applied for in section 9.2. The total assigned capacity shall be the aggregate of the assigned capacity as per sections 5.1 or 5.2 in this procedure of each load customer whose facilities are then served by the connection facility. In making this determination, GLPL shall take into account the normal size and shape of the

load of each load customer served by the connection facility, excluding anomalous situations such as reconfigurations that may be required by the IESO, temporary load transfers, or emergencies. (Code section 6.2.6)

- 9.5** GLPL will calculate the available capacity on the connection facility. The available capacity shall be determined by subtracting the total assigned capacity of the connection facility, determined in accordance with section 9.4 above, from the total normal supply capacity (TNSC) for that connection facility as per section 9. in this procedure. (Code section 6.2.7)
- 9.6** If GLPL can determine that less than 75% of the TNSC will be assigned including application(s) for new capacity, then GLPL will proceed to inform the Connection Applicant in writing of its assigned capacity and this Available Capacity Procedure ends.
- 9.7** If GLPL determines that greater than 75% of the TNSC will be assigned including the application(s) for new capacity then GLPL will notify, in writing, all load customers whose load affects the transformation or line connection facilities under study including the Connection Applicant. The letter shall contain the following information:
- 9.7.1 the reason GLPL is conducting an Available Capacity Procedure and the time table for completion of the Available Capacity Procedure;
- 9.7.2 information describing the transformation and/or line connection facilities involved including the available capacity of the facilities;
- 9.7.3 the load customer shall be requested to provide a load forecast for the next 5 years in a format as specified in GLPL's Load Forecast Form and the requirement as per section 4.1.3 in this procedure;
- 9.7.4 indicate the load customer may apply for additional available capacity which will require it to follow section 9.2 in this procedure;
- 9.7.5 indicate the load customers have 20 business days to provide the necessary information to GLPL; and
- 9.7.6 indicate that requests for available capacity received after 4:00 pm on the 20<sup>th</sup> business day will be assessed after the current Available Capacity Procedure study is complete.
- 9.8** GLPL will re-calculate the available capacity of the connection facilities by determining each customer's assigned capacity based on 9.4 in this procedure including any additional assigned capacity applied for by customers. If there is insufficient available capacity the additional assigned capacity will be assigned based on section 2.2 in this procedure.
- 9.9** GLPL will determine if the available capacity on the connection facility will require modification to existing or new connection facilities and therefore trigger an Expansion Study as per section 3 of this procedure.

- 9.10** GLPL will inform all affected load customers and the Connection Applicant(s) in writing of the available capacity procedure results while respecting the confidentiality provisions of the Code sections 6.2.27 and 4.7.1. Before disclosing the available capacity on a connection facility that serves only one customer, GLPL must first obtain the consent of that customer. Where such consent cannot be obtained, GLPL must request guidance from the Board. (Code section 6.2.27).

**Procedure P3**

**Security Deposit Procedure**

## **P3 – Security Deposit Procedure**

### **1 Introduction**

This Security Deposit Procedure was developed based on the requirements in the Code section 6.3.11. The purpose of this Security Deposit Procedure is to mitigate risk during the construction phase of a connection. This Security Deposit Procedure does not limit GLPL's rights in regard to security required to mitigate risk in regard to non-construction phases of connection.

### **2 Form of Security Deposit**

The Connection Applicant may choose to provide a security deposit in the form of cash, letter of credit, surety bond as may be selected by the Connection Applicant or such other form as the Connection Applicant and GLPL may agree. (Code section 6.3.11 (a)) If the Connection Applicant has an affiliate with a good credit rating and the affiliate is willing to provide a guarantee towards the Connection Applicant's indebtedness, GLPL may consent to the use the affiliate's guarantee as the security deposit for the Connection Applicant.

### **3 Amount of Security Deposit**

#### **3.1 Load Customers:**

A deposit is required for a signed Connection and Cost Recovery Agreement (CCRA) for connection of a load customer's new facilities to GLPL's Transmission System. The Connection Applicant shall provide a security deposit equal to the total connection and network facility cost estimated by GLPL to be incurred by GLPL minus, if applicable, the estimated cost of any contestable work the customer has elected to carry out and the Connection Applicant's Capital Contribution which the Connection Applicant has agreed to pay as documented in the CCRA which is described in the CCP – Step 4 – Connection and Cost Recovery.

#### **3.2 Generation Customers:**

The deposit is required for a signed CCRA for connection of a generator's new facilities to GLPL's Transmission System. The Connection Applicant shall provide a security deposit equal to the total connection and network facility cost estimated by GLPL to be incurred by GLPL minus the Connection Applicant's progress payments for connection facility costs which the Connection Applicant has agreed to pay as documented in the CCRA which is described in the CCP – Step 4 – Connection and Cost Recovery.

### **4 Interest**

Interest to be paid by GLPL upon returning a security deposit that is in the form of cash will be paid at the following rates: (Code 6.3.11 (b))

- i) for the period between the date on which the security deposit was provided by the Connection Applicant and the date on which the security deposit is required to be returned by GLPL, at the average over the period of the prime lending rate set by the Bank of Canada less two percent; and

- ii) for the period after the date on which the security deposit is required to be returned by GLPL, at the prime lending rate set by the Bank of Canada plus two percent.

## **5 Retention of All or Part of the Security Deposit**

GLPL shall be entitled to keep, draw down, redeem etc., as the case may be, all or a part of a security deposit that has been given in relation to the construction or modification of connection or network facilities where the Connection Applicant subsequently fails to connect its facilities to GLPL's new or modified facilities. (Code section 6.3.11 (c))

GLPL shall not otherwise retain a security deposit given in relation to the construction or modification of network facilities unless the Board has first determined under the Code section 6.3.5 that exceptional circumstances exist so as to reasonably require the Connection Applicant to make a capital contribution for the construction or modification of network facilities. (Code section 6.3.11 (c))

## **6 Return of Security Deposit**

Where the security deposit is in the form of cash, GLPL shall return the security deposit to the Connection Applicant, together with interest at the rate referred to in section 4.0 in this procedure, less the amount of any capital contribution owed by the Connection Applicant, once the Connection Applicant's facilities are connected to GLPL's transmission facilities. Where the security deposit is in a form other than cash, GLPL shall return the security deposit to the Connection Applicant once the Connection Applicant's facilities are connected to GLPL's transmission facilities and any capital contribution has been paid. (Code section 6.3.10)

For the purposes of the above paragraph the term 'capital contribution' shall mean the capital contribution for a Load Connection Applicant that is required to be paid to GLPL and/or the fully allocated cost of connection facilities that the Generator Connection Applicant is required to pay to GLPL.

## **7 Alternative Security**

Where an affiliate guarantee has been furnished as security, if the Connection Applicant or an affiliate of the Connection Applicant, experiences a "material change in financial risk" as defined by the Ontario Securities Act (R.S.O. 1990) as amended, the Connection Applicant must advise GLPL within five (5) business days of the change, and GLPL shall have the right to require security in a different form. The Connection Applicant will have five (5) business days to comply with GLPL's request.

## **8 Customer Requiring Capacity in the Future**

Where GLPL is, at the time at which it is constructing a connection facility for a customer, aware of another future customer that will need capacity within five years of the construction of the connection facility, GLPL shall add that capacity to the connection facility at the time of



construction, provided that it obtains a security deposit in a form referred to in the code section 6.3.11 from that future customer to cover the cost of that additional capacity. The amount of the capital contribution to be obtained from the current customer and the amount or value of the security deposit to be collected from the future customer shall be determined using the economic evaluation methodology set out in the Code section 6.5, the load forecasts of both customers and the methodology for attributing that capital contribution as described in the Code section 6.3.14, 6.3.15 or 6.3.16. At the time of connection of the future customer's facilities, GLPL shall where required redo the original economic evaluation using the same inputs except for any revised load forecast provided by the future customer. This will determine the amount of capital contribution to be collected from the future customer. Where the security deposit is in the form of cash, GLPL shall return the security deposit to the future customer at the time of connection of its facilities to the connection facility, together with interest at the rate referred to in the Code section 6.3.11, less the amount of the future customer's capital contribution. Where the security deposit is in a form other than cash, the transmitter shall return the security deposit to the future customer upon receipt of the customer's capital contribution. (Code section 6.3.9)

## **9 Security Deposit Procedure**

- 9.1** GLPL will calculate the security deposit the Connection Applicant is required to provide GLPL as per section 3.0 in this procedure
- 9.2** The Connection Applicant will inform GLPL in writing regarding the form of the security deposit based on section 2.0 in this procedure.
- 9.3** GLPL will review the form of the security deposit to determine if it is acceptable to GLPL. If it is not acceptable, GLPL will inform the Connection Applicant of any additional requirements.
- 9.4** GLPL and the Connection Applicant will finalize the form and amount of the security deposit and document both in the CCRA which is described in the CCP – Step 4 – Connection and Cost Recovery. GLPL may require each Connection Applicant to provide the security deposit at or before the time of executing a CCRA.
- 9.5** As required, GLPL will request an additional security deposit as per section 7.0 in this procedure, retain all or part of the security deposit as per section 5.0 in this procedure and/or return of the security deposit as per section 6.0 in this procedure including interest if applicable as per section 4.0 in this procedure.

**Procedure P4**

**Customer Impact Assessment (CIA) Procedure**

## **P4 – Customer Impact Assessment (CIA) Procedure**

### **1 Introduction**

The CIA is required to determine the impact of new or modified connections on existing transmission customers as per the Code section 6.4 CUSTOMER IMPACT ASSESSMENTS. GLPL as the transmitter is required to conduct CIA studies.

- 1.1** The CIA study is limited to assessing the impact of the new or modified connection on the supply at the transmission connection/delivery points to other transmission customers. It is the responsibility of each transmission customer to determine the impact and modifications to their electrical facilities and to advise GLPL through the CIA process. GLPL will issue a draft of the CIA report to customers who may be potentially impacted by the connection and those customers are required to provide feedback. GLPL will include the unedited version of this feedback in the final CIA report and GLPL will not take responsibility for the contents of the transmission customer's feedback. A copy of the final CIA report will be sent to the IESO, to each customer whose facilities are located in the study area and the Ontario Electrical Safety Authority (OESA) as per the Code section 6.4.5.
- 1.2** The decision on the level of modifications at a customer's facility that can be attributed to the new or modified connection, as well as the assignment of cost responsibilities for the identified enhancements/modifications, are outside GLPL's accountabilities. Affected customers should refer to the Code section 6.4.4 regarding cost responsibilities. (Code section 6.4.3)

### **2 Requirements for a CIA Study**

A CIA is required for all new or modified connections which are subjected to the IESO's Customer Assessment and Approval (CCA) process and require a System Impact Assessment (SIA). If the IESO determines an Expedited SIA (no formal study) is sufficient then a CIA is not required unless GLPL determines there is an impact on the existing transmission customers. If a CIA is not performed, GLPL will be required to notify all customers in the vicinity of the connection, advising them of the proposed connection work and the fact that it has no negative impact and that no specific CIA study will be done.

The scope of the CIA study and report will be project specific, depending on the complexity of the connection project and the extent of its impact on other transmission customers.

### **3 Responsibilities of Each Party**

#### **3.1 Responsibilities of Connection Applicant**

- 3.1.1** Execute a CIA Agreement with GLPL. The Agreement will allow GLPL to provide the final CIA report to the IESO, each customer whose facilities are located in the study area and the OESA.
- 3.1.2** Provide information and data as required by GLPL to conduct the CIA.

3.1.3 Pay the cost of the CIA study as per the CIA Agreement

### **3.2 Responsibilities of GLPL**

3.2.1 Conduct a CIA for all new or modified connections to the IESO-controlled grid when required by the Code and as determined by GLPL.

3.2.2 Execute a CIA agreement with the Connection Applicant. The Agreement will allow GLPL to provide the final CIA report to the IESO, each customer whose facilities are located in the study area and the OESA.

3.2.3 Prepare a draft CIA report attached to a covering letter to customers in the vicinity of the new or modified connection that references the responsibility of the transmission customers:

- to identify modification on their facilities that are triggered by the proposed new or modified connection;
- to upgrade its facilities in accordance with section 24.3 of its Connection Agreement;
- to carry out those modifications two weeks prior to the connection applicant's proposed initial in-service date; and
- to provide the transmitter with ESA approval (where required) and a detailed description of the upgrades that were undertaken.

The report should reference the IESO's SIA study and report.

3.2.4 Include the unedited feedback from customers in the vicinity of the new project in the final CIA report.

3.2.5 Provide the final report of the CIA results to the IESO, the Connection Applicant, each customer whose facilities are located in the study area and the OESA.

3.2.6 Provide an invoice of the cost of the CIA study to the Connection Applicant based on GLPL's approved fee schedule and as per the CIA Agreement.

### **3.3 Responsibilities of Other Transmission Customers**

3.3.1 Provide a preliminary assessment of expected impacts and modifications on its own electrical facilities to GLPL which will become an unedited part of the final CIA Reports.

3.3.2 Confirm the modifications that are required on its facilities with GLPL together with the required lead-time for such changes.

- 3.3.3 Upgrade the facilities affected by the new connection in accordance with section 24.3 of its connection agreement.
- 3.3.4 Provide documented proof to GLPL that all modifications on its own facilities are in place two weeks prior to the planned initial in-service date for the new or modified connection facilities. The documentation shall include ESA approval (where required) and a detailed description of the upgrades that were undertaken.

### **3.4 Responsibilities of the IESO**

- 3.4.1 Advise Connection Applicants to submit an application to GLPL.
- 3.4.2 Advise GLPL of all Connection Applicants registering for the IESO's CAA process.
- 3.4.3 Advise GLPL if an SIA will be conducted by the IESO so GLPL can assess if a CIA is required.
- 3.4.4 Ensure that the SIA report references GLPL's CIA report.

## **4 CIA Study and Report**

GLPL's CIA study will be initiated upon the execution of a CIA Agreement with the Connection Applicant and the IESO has issued its final SIA report and the Connection Applicant requests in writing instructing GLPL to proceed with the CIA study.

GLPL will conduct the CIA to determine the expected technical impact on its existing customers on the following as appropriate:

- a. short circuit levels at the customer connection/delivery point;
- b. supply voltage levels at the customer connection/delivery point;
- c. adequacy/capacity of supply facilities at the customer connection/delivery point; and
- d. reliability of the supply at the customer connection/delivery point.

Information from the IESO SIA will be used to complete the CIA Report.

A transmitter shall use the results of a CIA to provide each customer affected by a proposed new or modified connection with a new available fault current level in order to allow each customer to take, at its own expense, action to upgrade its facilities as may be required to accommodate the new available fault current level up to the maximum allowable fault levels set out in the Code Appendix 2. (Code section 6.4.4)

## **5 CIA Procedure**

- 5.1 GLPL will prepare a draft CIA report to outline the CIA study results within 15 to 30 business days, depending on the complexity of the connection application of the Connection Applicant requesting in writing that the CIA proceed and the issuing of the IESO's final SIA report.

- 5.2 GLPL will issue the draft CIA report to the IESO, Connection Applicant and transmission customers in the vicinity of the new or modified connection.
- 5.3 Transmission customers in the vicinity of the new or modified connection will have 30 business days to provide their feedback from the issuance of the draft CIA report.
- 5.4 A final CIA report with customer feedback will be completed within 15 business days of the date the customers in the vicinity of the new or modified connection are to provide their feedback.
- 5.5 The final CIA report will be distributed to the IESO, Connection Applicant, OESA and transmission customer in the vicinity of the new or modified connection. The report may also be provided to the OEB by the IESO or the Connection Applicant.

**Notes:**

If the Connection Applicant makes material changes to the proposed connection after the final CIA report is issued then GLPL will review the CIA to determine if there is a need to revise the final report, send it to the impacted transmission customers for additional feedback and issue an addendum to the final CIA report. The Connection Applicant will be accountable for the additional costs. If a new IESO SIA is required then a new SIA/CIA Agreement must be executed and a new CIA conducted.

**Procedure P5**

**Economic Evaluation Procedure  
(Load Customers)**

## **P5 – Economic Evaluation Procedure (Load Customers)**

### **1 Introduction**

This procedure applies to Load Connection Applicants who have proposed a new or modified connection, and ask GLPL to fund the construction of facilities and/or GLPL has to modify its own existing facilities, which will be repaid over time by the Load Connection Applicant. The repayment will take the form of a capital contribution plus periodic true-ups.

This procedure has been prepared based on the requirements of the Code section 6.1.4 (e) and to comply with the Code sections 6.5.2 and 6.5.3. GLPL will carry out this economic evaluation of a proposed new or modified connection to determine what capital contribution is to be made by the Load Connection Applicant.

### **2 Initiating the Economic Evaluation Procedure**

**2.1** The Load Connection Applicant initiates CCP – Step 3 – Connection Estimates section 3.4.1 by informing GLPL in writing that it wants to proceed with the connection and is requesting estimates of the connection costs.

**2.2** GLPL will use the results of the CCP Step 3 – Connection Estimates Procedure and, if required, CCP Procedures – P6 Contestability Procedure as inputs to this Economic Evaluation Procedure.

### **3 Determining the Financial Risk and Economic Evaluation Period**

#### **3.1 Load Connection Applicant’s Financial Risk**

Based on the information provided and the methodology outlined below, GLPL will assign the Load Connection Applicant a financial risk (Code Appendix 5) as one of the following:

- a) High Risk
- b) Medium High Risk
- c) Medium Low Risk
- d) Low Risk

This risk will determine the time period over which the costs of connection will be recovered from the Load Connection Applicant.

#### **3.2 Load Connection Applicant’s Economic Evaluation Period**

GLPL will identify the Economic Evaluation Period based on the following: (Code section 6.5.2 (b))

- i. 5 years for a high risk connection;
- ii. 10 years for a medium high risk connection;
- iii. 15 years for a medium low risk connection; and
- iv. 25 years for a low risk connection.



When a connection is for a project having a finite life, the economic evaluation period will be based on the life of the project or the economic evaluation period, whichever is less.

### **3.3 Methodology – Financial Risk**

The following is the methodology that will be used by GLPL in determining the financial risk associated with a proposed connection of the Load Connection Applicant. GLPL’s methodology shall meet the requirements of and be consistent with Appendix 4. (Code section 6.5.3 (a))

#### **3.3.1 Project Financed Connections**

For a new or modified connection that is being financed by the Load Connection Applicant on a “project financing” basis, the Load Connection Applicant’s financial risk classification will be determined by the type and amount of security provided. Ordinarily a parental guarantee from an entity with an acceptable credit rating will be required. With an acceptable parental guarantee, the risk classification of the project will be based on the risk of the parent, subject to the exception noted above for finite-life projects in section 3.2 in this procedure.

When acceptable security is not provided, the Load Connection Applicant will be assigned a high-risk classification.

#### **3.3.2 Connections that are not Project Financed**

For a new or modified connection that is not being financed by the Load Connection Applicant on a “project financing basis”, GLPL will determine the financial risk of the Load Connection Applicant associated with the proposed connection based on the following:

##### **Load Connection Applicant with Bond Rating**

GLPL will establish a Load Connection Applicant’s risk classification based upon the customer’s bond rating, as provided from a known bond-rating agency. [i.e.: Dominion Bond Rating Service (DBRS) or equivalent (refer to the Altman Z Table below)]

##### **Load Connection Applicant Without Bond Rating**

Should a Load Connection Applicant not have a bond rating, the risk profile shall be based on the customer’s Altman Z-Score for Public Industrial Companies, Private Industrial Companies or Private Non-Industrial Companies; as appropriate.

Where audited financial statements (refer to section 8.2 in this procedure) are not available from the Load Connection Applicant, GLPL may, at its option, use unaudited financial statements or other similar information.

Where the customer has not provided GLPL with some or all of the information necessary to determine a risk classification, GLPL may use estimates based on information provided by similar customers. Where no such comparable information is available or where GLPL

considers that the customer's circumstances are such as to render the comparisons inappropriate, GLPL may deem the risk classification as high risk.

**Altman Z Model**

The entity that published the Altman Z score Models included in this procedure was:

Predicting Financial Distress of Companies:  
Revisiting the Z Score and Zeta Models  
Edward I. Altman  
July 2000

These models are also referenced in:

CPA Journal Online  
Feb. 1995  
Z Scores – a guide to failure prediction.  
by Eidleman, Gregory J.  
<http://www.nysscpa.org/cpajournal/old/16641866.htm>

The reference to public and private companies can also be found in:

Bankruptcy Calculator:  
Z-Score of Publicly Held Firm  
<http://jaxworks.com>

Based on the date of the article the new models were developed prior to February 1995. There is no information with respect to when the models are updated. However, the document Altman Z Scores Described states that:

“This model was developed in the 1960's and updated in the 1990's, using data from mid-sized public and private manufacturing firms.”

“The model was developed in the late 1960's by Edward Altman, Professor of Finance at New York University School of Business. The model incorporates five weighted financial ratios into the calculations of the Z-Score. Professor Altman continues to update the model's coefficients to reflect changing ways of conducting business. The coefficient values used in this SDS, Inc. Supplier Financial Analysis Notebook were published in 1993 in Professor Altman's book entitled “Corporate Financial Distress and Bankruptcy”, 2nd edition Copyright 1993 by John Wiley & Sons, Inc.”

The Altman Z-Score is calculated as follows:

**Public Industrial Companies**

$$Z = 1.2 \times X_1 + 1.4 \times X_2 + 3.3 \times X_3 + 0.6 \times X_4 + 0.999 \times X_5$$

Private Industrial Companies:

$$Z = 0.717 \times X_1 + 0.847 \times X_2 + 3.107 \times X_3 + 0.420 \times X_4 (*) + 0.998 \times X_5$$

Private Non-Industrial Companies

$$Z = 6.56 \times X_1 + 3.26 \times X_2 + 6.72 \times X_3 + 1.05 \times X_4 (*)$$

Where:

- X<sub>1</sub> =working capital/total assets
- X<sub>2</sub> =retained earnings/total assets
- X<sub>3</sub> =earnings before interest and taxes (EBIT)/total assets
- X<sub>4</sub> =market value of equity/book value of total liabilities
- X<sub>4</sub> (\*) =book value of equity/book value of total liabilities
- X<sub>5</sub> =sales/total assets

The Load Connection Applicant’s Risk Classification and Economic Evaluation Period will be based on the following table:

**Altman Z Table**

| Bond Rating*                               | Altman Z-Score**  |                    |                          | Risk Classification | Economic Evaluation Period |
|--|-------------------|--------------------|--------------------------|---------------------|----------------------------|
|  | Public Industrial | Private Industrial | Private Non - Industrial |                     |                            |
| CCC and below                              | <1.81             | <1.23              | <1.10                    | High Risk           | 5 years                    |
| B-BB                                       | 1.81 - 2.67       | 1.23 - 2.59        | 1.10 - 2.32              | Medium High Risk    | 10 years                   |
| Industrial BBB-AAA<br>Non industrial – BBB | 2.68 – 2.99       | 2.60 – 2.90        | 2.33 – 2.60              | Medium Low Risk     | 15 years                   |
| Non Industrial A-AAA                       | >2.99             | >2.90              | >2.60                    | Low Risk            | 25 years                   |

\* Based on DBRS rating scale. Investment grade credits qualify for risk ratings of 15 years and above. Non-investment grade credits qualify for risk ratings of less than 15 years. Equivalent ratings from the rating agencies would apply if deemed suitable to GLPL.

\*\* The apportionments were made based on scaling the intermediate cutoff points used in the CPA Journal Online as referred to above and as calculated by Hydro One.

Public non-industrial companies or other entities that do not fall within the compass of one of the 3 Altman Z scores will be assessed using an appropriate methodology, at GLPL's discretion.

If the Altman Z score appear anomalous, GLPL will use at its sole discretion the Kaplan-Urwitz model as a secondary methodology.

### **Kaplan-Urwitz Model**

The term (  $- 2.56 X_2$  ) is included in the formal model as indicated in the paper "Risk Assessment Methodology Options, PHB Hagler Bailly, Management and Economic Consultants, 03/30/00; page 6 footnote 3. It is not clear if it was included in the model which, according to Ref. (c)/ page 6/ foot note 3, was published in April, 1979. There is no information to indicate that the model was revised by the authors or any other entity.

The Kaplan-Urwitz Score is calculated as follows:

$$KU = 4.41 + 0.0012 \times X_1 - 2.56 \times X_2 - 2.72 \times X_3 + 6.40 \times X_4 - 0.53 \times X_5 + 0.006 \times X_6$$

Where:

$X_1$  =total assets (\$000)

$X_2$  = if debt is subordinated, 1; otherwise 0

$X_3$  =long term debt/total assets

$X_4$  =net income over total assets

$X_5$  =coefficient of variation in net income over 5 years

$X_6$  =interest coverage (EBIT/interest expense)

The Load Connection Applicants Risk Classification and Economic Evaluation Period will be based on the following table:

**Kaplan Urwitz Table**

| <b>Bond Rating*</b>  | <b>Kaplan Urwitz-Score***</b> | <b>Risk Classification</b> | <b>Economic Evaluation Period</b> |
|----------------------|-------------------------------|----------------------------|-----------------------------------|
| CCC and below        | <0**                          | High Risk                  | 5 years                           |
| B-BB                 | <0**                          | Medium High Risk           | 10 years                          |
| Industrial BBB-AAA   | >1.57                         | Medium Low Risk            | 15 years                          |
| Non industrial – BBB | 1.57 – 3.28                   |                            |                                   |
| Non Industrial A-AAA | >3.28                         | Low Risk                   | 25 years                          |

\* Based on DBRS rating scale. Investment grade credits qualify for risk ratings of 15 years and above. Non-investment grade credits qualify for risk ratings of less than 15 years. Equivalent ratings from the rating agencies would apply if deemed suitable to GLPL.

\*\* Kaplan-Urwitz bond rating-equivalency scores are not provided for non-investment grade entities (below BBB). Kaplan-Urwitz scores less than zero accordingly will be classified as either high-risk or medium-high risk based on a combination of Kaplan-Urwitz scores, Altman Z scores and other factors such as traditional credit analysis.

\*\*\* The methodology was applied to bond ratings as is done in the Altman Model in order to be consistent. The Altman Z Model tables, as published, do not include a category for an Industrial class to score a low-risk risk profile. Therefore, the presentation of the two models is consistent. GLPL accepted Hydro One's apportionments and methodology that an Industrial class cannot exceed "Medium Low Risk".

**Application to OEB**

Where GLPL considers that the risk classification that results from the application of the above methods produces an anomalous result, GLPL may, with the Load Connection Applicant’s consent, assign a different risk classification to the new or proposed connection. Where the Load Connection Applicant does not consent, GLPL may apply to the OEB for approval to determine the Load Connection Applicant’s risk classification using an alternate methodology. (Code Appendix 4)

**4 Load Connection Applicant’s Load Forecast and Connection Revenue**

The relevant connection rate revenues shall be the revenue derived from that part of the Load Connection Applicant’s new load that exceeds the total normal supply capacity of any

connection facility already serving that Load Connection Applicant and which will be served by the new or modified connection facility. (Code section 6.5.2 (j))

The Load Connection Applicant shall provide GLPL with its load shape in monthly peak load forecasts based on the economic evaluation period calculated in 3 in this procedure. This shall be submitted to GLPL in writing and signed by a person or persons that can bind the company. The format acceptable to GLPL is based on the Load Forecast Form to be provided by GLPL. (Code section 6.5.2 (k))

## **5 Capital Contribution Calculation**

**5.1** The Capital Contribution (CC) Calculation will be based on the following requirements:

5.1.1 GLPL will calculate the CC using the discounted cash flow calculation set out in the Code Appendix 5 using the forecast connection rate revenues from the connection facilities as calculated in section 4 in this procedure and the fully allocated capital cost [based on the estimated costs identified in CCP – Step 3 – Connection Estimates and if applicable CCP – Procedures P6 - Contestability Procedure (Load Customers)], operating and maintenance cost and administrative cost of the minimum design required to meet the Load Connection Applicant's needs. The costs shall include GLPL's cost of GLPL-owned equipment for monitoring and testing installed on connection facilities on either side of the connection point, and the cost of carrying out verification testing on that equipment; (Code section 6.5.2 (c))

5.1.2 The cost used in the economic evaluation is limited to the advancement costs where GLPL had planned a new or modified connection facility and moves the planned date forward to accommodate a Load Connection Applicant; (Code section 6.5.2 (d))

5.1.3 GLPL will use a discount rate that is based on GLPL's current deemed debt-to-equity ratio, debt and preference share costs and the most recent Board-approved rate of return on equity; (Code section 6.5.2 (e))

5.1.4 That discounting will reflect the true timing of expenditures so that upfront capital expenditures are treated as occurring at the beginning of the first year of operation, and future capital expenditures, annual connection rate revenues and average operation and maintenance costs will be treated as occurring at the mid-point of the year in which they occur; (Code section 6.5.2 (f))

5.1.5 GLPL will take into account all relevant tax amounts, adjusted by any applicable capital cost allowance. (Code section 6.5.2 (g)) Taxes include income taxes, capital taxes and other taxes, as applicable;

5.1.6 GLPL will exclude network facility costs and network rate revenues; and (Code section 6.5.2 (h))

5.1.7 GLPL will exclude historic revenues and sunk costs. (Code section 6.5.2 (i))

**5.2** Where GLPL undertakes an economic evaluation for a Load Connection Applicant the economic evaluation will be completed separately for line connection assets and transformation connections assets. (Code section 6.5.2 (l))

## **6 Fully Allocated Capital Cost**

The fully allocated capital cost to be used in the calculation of the Load Connection Applicant's capital contribution is:

**6.1** the capital costs of any GLPL uncontestable work including GLPL overheads; plus

**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 billed to the Load Connection Applicant.

## **7 Partial Refund of Capital Contribution**

Where a Load Connection Applicant has made a capital contribution for the construction of a connection facility, and where that capital contribution includes the cost of capacity on the connection facility not needed by the Load Connection Applicant, GLPL shall provide a refund, calculated in accordance with the Code section 6.2.25, to the Load Connection Applicant if that capacity is assigned to another load customer within five years of the date on which the connection facility comes into service. Where such a refund is required under the Code section 6.2.25, GLPL shall require a financial contribution, calculated in accordance with the Code section 6.2.25, from the subsequent customer. (Code section 6.2.24)

## **8 Economic Evaluation Procedure**

**8.1** GLPL will initiate the Economic Evaluation Procedure once the Load Connection Applicant has informed GLPL in writing as per section 2.1 Initiating the Economic Evaluation Procedure.

**8.2** GLPL will define what information the Load Connection Applicant must provide in order to determine the financial risk of the Load Connection Applicant. The information will include, but not be limited to:

- i. Credit worthiness and bond rating
- ii. Audited financial statements for previous 3 years

**8.3** The Load Connection Applicant provides the requested information to GLPL.

**8.4** GLPL will determine the financial risk and economic horizon for the Load Connection Applicant as per section 3 in this procedure and inform the Load Connection Applicant in writing.

- 8.5** GLPL will calculate the Load Connection Applicant's initial capital contribution as per section 5 in this procedure based on estimated costs.
- 8.6** GLPL will provide the Load Connection Applicant in writing a copy of the economic evaluation with the requirement for any initial capital contribution clearly identified.
- 8.7** The Load Connection Applicant and GLPL will proceed to negotiate and sign a Connection Cost and Recovery Agreement (CCRA) as per CCP – Step 4 – Connection and Cost Recovery.
- 8.8** Since the calculation of the Load Connection Applicant's initial capital contribution was based on estimated costs, GLPL will recalculate the Load Connection Applicant's capital contribution in accordance with the original method based on actual costs as soon as these are known, and obtain from or credit the Load Connection Applicant for any difference between the two calculations. Such recalculated capital contribution shall thereafter be used as the Load Connection Applicant's capital contribution for all purposes under the Code. (Code section 6.5.2)

## **9 Economic Evaluation True-up Procedure**

- 9.1** GLPL will document in the CCRA the requirements for true-up calculations based on the Code sections 6.5.3 to 6.5.11.
- 9.2** The Load Connection Applicant will provide GLPL, on the true-up date, its revised load forecast from the true-up date until the end of the economic evaluation period with a format as per GLPL's Load Forecast Form.
- 9.3** GLPL will undertake the Economic Evaluation at each true-up point based on the Code sections 6.5.3 to 6.5.11 and as documented in the CCRA.
- 9.4** GLPL will inform the Load Connection Applicant in writing of the results of the economic evaluation true-up calculation including any additional payment the load customer is required to pay to make up any shortfall or identification of any excess revenue credited to the load customer in a notional account.
- 9.5** For the final true-up calculation, GLPL will indicate to the Load Connection Applicant in writing that it is the last true-up and any adjustments will be as per the Code section 6.5.7 which applies to any payment to the load customer of the final credit in the notional account.



**Procedure P6**

**Contestability Procedure  
(Load Customers)**

## **P6 – Contestability Procedure**

### **1 Introduction**

This Contestability Procedure was developed based on the intent of the revised Code dated July 25, 2005 section 6.6 Contestability.

### **2 Criteria for Uncontestable and Contestable Work:**

Sections 2.1 and 2.2 define the Uncontestable Work and Contestable work based on the Code section 6.6.2 (a).

#### **2.1 Uncontestable Work:**

- 2.1.1 Design and build modification to or addition of transformation and/or line connection facilities on GLPL's existing facilities or utilizing existing station sites or existing rights-of-way; or
- 2.1.2 Design technical requirements and specifications for new transformation and/or line connection facilities not on GLPL's existing facilities or utilizing existing station site or existing rights-of-way but to be owned by GLP.

#### **2.2 Contestable Work:**

- 2.2.1 Design and build (excluding design technical requirements and specifications) new transformation and/or line connection facilities to be owned by GLPL which do not utilize existing station sites or existing rights-of-way.

### **3 Rights and Obligations of the Load Customer:**

- 3.1 The right of the load customer to choose to carry out the contestable work or to require GLP to do it, provided that where the load customer chooses to carry out the contestable work; it must carry out all of the contestable work. (Code section 6.6.2 (c))
- 3.2 Where a load customer elects to carry out contestable work, the obligation of the load customer to complete that contestable work in accordance with GLPL's conceptual design and technical standards and specifications and to pay any Board-approved fees for inspection, testing and commissioning by GLPL. (Code 6.6.2 (d))
- 3.3 The right of the load customer to transfer any dedicated connection facilities (connection facilities serving one customer) it constructs to GLPL and the obligation to transfer non-dedicated connection facilities (connection facilities serving more than one load or generator customer) that it constructs to GLPL.(Code 6.6.2 (e))

**4 Obligations of GLPL:**

- 4.1** Where a load customer requires new connection facilities, GLPL shall allow the load customer to elect either to provide its own connection facilities or to require GLPL to provide them. (Code section 6.6.1)
- 4.2** Where the load customer elects to require GLPL to provide the connection facilities, GLPL shall also allow the load customer to elect to have any associated contestable construction or design work as identified in section 2.2.1 in this procedure carried out by a party other than GLPL. (Code section 6.6.1)
- 4.3** GLPL has an obligation at no cost to provide the following to the load customer (Code section 6.6.2 (b)):
- i. a description of the contestable work and uncontestable work base on the criteria above;
  - ii. a description of the labour and materials for each of the contestable work and the uncontestable work;
  - iii. an initial estimate of the capital cost for each of the contestable work and the uncontestable work, broken down into labour (including design, engineering and construction), materials, equipment, direct overhead (including administration) and indirect overhead costs, together with an indication of the degree of accuracy of that estimate;
  - iv. the calculation used to determine any capital contribution to be paid by the load customer if GLPL constructs the connection facilities, even if no capital contribution is required. This calculation must include all of the assumptions and inputs used to produce the economic evaluation as described in CCP – Procedures P5 – Economic Evaluation Procedure (Load Customers), including the manner in which the customer’s risk classification has been determined under the Code Appendix 4; and
  - v. the information set out in the Code Appendix 3, and the technical standards and specifications applicable to the contestable work, in sufficient detail to allow the load customer to design and construct connection facilities that will meet the requirements applicable to GLPL’s transmission system;

and to provide, at cost, any revisions to this information required either due to changes in the load customer's plans or to obtain additional design work in order to enhance GLPL’s initial capital cost estimate;

- 4.4** Where a load customer proposes or is obliged to transfer any connection facilities it constructs to GLPL, GLPL has an obligation to provide, upon request and at cost, engineering design in sufficient detail to allow the load customer to carry out the contestable work and meet the specific connection facility design and performance requirements of GLPL. (Code section 6.6.2 (f))
- 4.5** The obligation of GLPL to pay a transfer price that is the lower of the cost to the load customer or the transmitter's reasonable cost to do the same work, for any connection

facility a load customer constructs and opts or is required to transfer to GLPL. (Code section 6.6.2 (g))

- 4.6** Where GLPL pays a transfer price for a connection facility constructed by a load customer, GLPL has an obligation to make any adjustment required to reflect that transfer price in any capital contribution that is to be paid by the load customer as calculated in accordance with CCP – Procedures P5 – Economic Evaluation Procedure (Load Customers). (Code section 6.6.2 (h)):
- 4.7** GLPL has an obligation to prepare all estimates required by this contestability procedure in accordance with good utility practice and industry standards. (Code section 6.6.2):
- 4.8** GLPL shall provide a copy of this contestability procedure to any load customer requiring new connection facilities. (Code section 6.6.3)

## **5 Contestability Procedure**

- 5.1** As per CCP – Step 3 – Connection Estimates section 3.4.2, the load connection applicant will indicate to GLPL in writing whether it is requesting GLPL to implement this Contestability Procedure.
- 5.2** If the Load Connection Applicant requires GLPL to provide initial estimates of the capital cost of contestable work then GLPL shall provide the customer with the information as outlined in 4.3 in this procedure within 45 business days.
- 5.3** As per CCP – Step 3 – Connection Estimates section 3.4.13, the load connection applicant must select one of the following three options:
- i. GLPL built and owned (pool funded)
  - ii. Customer built and transferred to GLPL (pool funded)
  - iii. Customer built and owned (not pool funded)
- 5.4** If the Load Connection Applicant selects 5.3 i above (GLPL built and owned) then the GLPL initial estimates for all the contestable and uncontestable connection facilities will be used in the CCP – Procedures P4 – Economic Evaluation Procedure CCP to determine the Load Connecting Customer’s capital contribution. The initial estimate will be +/- 20% as per the CCP – Step 3 – Connection Estimates.
- 5.5** If the Load Connection Applicant selects 5.3 ii above (to build the facilities themselves and transfer the facilities to GLPL) then:
- 5.5.1** GLPL will provide initial estimates of the capital cost for the contestable and uncontestable GLPL work required for connection as per 4.3 in this procedure and these initial estimates will be used in the CCP – Procedures P4 – Economic Evaluation Procedure CCP to determine the Connecting Customer’s capital contribution. The initial estimate will be +/- 20% as per the CCP – Step 3 – Connection Estimates;
- 5.5.2** If the Load Connection Applicant proceeds with the connection GLPL will provide, when requested and at cost as part of the full capital cost of the facility to be transferred to

- GLPL, design technical requirements and specifications to allow the customer to carry out the contestable work including GLPL design, construction, operations and maintenance standards that must be met in constructing the connection facilities to be transferred to GLPL;
- 5.5.3 the transfer price will be as per section 4.5 in this procedure and GLPL's reasonable cost to do the same work will be based on the initial estimated capital cost of the contestable work (if the Connecting Applicant requests a more accurate estimate from GLPL then GLPL will provide a more accurate estimate at cost for the Connection Applicant to establish GLPL's reasonable cost of the contestable work to determine the transfer price);
- 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 billed to the Connection Applicant; and
- 5.5.5 the capital cost for a connection facility constructed by the Load Connection Applicant is finalized and GLPL has paid the Load Connection Applicant the transfer price, GLPL will adjust the capital contribution as per section 4.6 of this procedure with the Load Connection Applicant accountable for any increase in the capital contribution and GLPL accountable for refunding part of the capital contribution, already paid by the Load Connection Applicant, if the capital contribution is reduced.
- 5.6** If the Load Connection Applicant selects 5.3 iii above (to build and own all new connection facilities that are contestable) then GLPL's initial estimates for uncontestable connection facilities will be used in the CCP – Procedures P4 – Economic Evaluation Procedure CCP to determine the Connecting Customer's capital contribution. The initial estimate will be +/- 20% as per the CCP – Step 3 – Connection Estimates.

**Procedure P7**

**Reconnection Procedure**

## P7 – Reconnection Procedure

### 1 Introduction

This Reconnection Procedure was developed based on the intent of the revised Code dated July 25, 2005 section 6.10.3. The procedure applies in the case of a voluntary temporary disconnection by the customer or after disconnection of the customer by GLPL and the customer requests reconnection. This procedure does not apply to planned and unplanned outages.

After a voluntary temporary disconnection by the customer or after disconnection of the customer by GLPL, GLPL shall provide the customer with this reconnection procedure which can be downloaded from GLPL's website [www.glp.on.ca](http://www.glp.on.ca). If the changes to the customer facilities are not material then this reconnection procedure should be limited to commissioning of the customer's facility and any GLPL connecting facilities especially protection and control systems.

### 2 Reconnection Procedure

- 2.1 When the customer wishes to reconnect a Customer Connection Application will be completed and sent to GLPL. The focus of the application will be to identify the reason for the disconnection, any measures taken to rectify any connection issues and any differences in the customer's facilities since the disconnection.
- 2.2 GLPL will then follow CCP Step 1 – Customer Connection Application to start the reconnection process.
- 2.3 The Customer will contact the IESO and determine if a SIA or ESIA is required to be conducted by the IESO. If the IESO requires either then follow CCP Step 2 – SIA and CIA Studies.

**Note:** GLPL shall not carry out a system study in relation to a proposed reconnection unless it can demonstrate that the system study is necessary to ensure system integrity or is required by the IESO. (Code section 6.10.4)

- 2.4 GLPL will provide for notice to be given to Connection Applicant, setting out all steps to be taken by the Connection Applicant and GLPL as part of the reconnection based on information submitted by the customer. Steps to be considered are:
  - 2.4.1 GLPL will review any changes the customer has identified in its system since disconnection and if required a Customer Impact Assessment (CIA) will be undertaken as CCP – Procedures P4 – Customer Impact Assessment (CIA) Procedure at the reconnecting customers cost.

- 2.4.2 GLPL will estimate the costs of reconnection following CCP Step 3 Connection Estimates to estimate any costs to be borne by the customer. GLPL will also inform the customer of the duration of the reconnection process.
- 2.4.3 The customer will be required to sign a Connection and Cost Recovery Agreement (CCRA) as outlined in CCP Step 4 – Connection and Cost Recovery. This includes the customer and transmitter signing a revised or new Connection Agreement before reconnection of the customer as required.
- 2.4.4 GLPL and the Customer will follow the relevant steps in CCP – Step 5 – Design & Build and CCP – Step 6 - Commissioning based on the amount of changes to the customer facility as part of reconnection.
- 2.5** GLPL will approve the reconnection of the customer facilities when it is satisfied that the customer facilities will not cause any adverse effects on the transmission system.
- 2.6** After the customer is reconnected, GLPL will invoice the customer for any costs incurred as part of this Reconnection Procedure.



**Procedure P8**

**Dispute Resolution Procedure**

## **P8 – Dispute Resolution Procedure**

### **1 Introduction**

GLPL has developed the following Dispute Resolution Procedure for implementation in the event of a dispute with a customer as per the revised Code dated July 25, 2005 section 6.1.4 (h) and in accordance with the Code section 12.1.

This dispute resolution procedure includes provisions that: (Code section 12.1.2)

- a) provides for the fair, timely and effective resolution of disputes;
- b) sets out specific timelines for completion of the dispute resolution process; and
- c) establishes the right of GLPL or the customer to bring a dispute to the Ontario Energy Board for resolution, if it has not been resolved by the parties within 30 days using the procedure outlined in section 2.2 in this procedure.

If a dispute arises while GLPL is constructing new or modified connection facilities for a Connection Applicant, GLPL shall not cease work or slow the pace of work without leave of the Board. (Code section 12.1.3)

### **2 Dispute Resolution Procedure**

#### **2.1 Exclusivity**

2.1.1 Subject to sections 2.1.2 below:

- a) the procedure set forth in this CCP – Procedures P8 – Dispute Resolution Procedure shall apply to disputes arising between the customer and GLPL regarding GLPL's obligations under the Act, the Electricity Act, its license, the Transmission System Code or any of GLPL's connection procedures except as otherwise specified in the Transmission System Code section 12. (Code section 12.1.1)
- b) the Parties shall comply with the procedure set out in this CCP – Procedures P8 – Dispute Resolution Procedure before taking any other civil or other proceeding in relation to the dispute.

2.1.2 This dispute resolution procedure shall not apply to disputes that arise between GLPL and a customer: (Code section 12.1.4)

- a) that are governed by the dispute resolution process contained in their connection agreement; or
- b) that relate to the terms and conditions of a contractual arrangement that is under negotiation between GLPL and the customer, except where one party alleges that the other party is:

- i) seeking to impose a term or condition that is inconsistent with or contrary to the Act, the Electricity Act, a party's licence, the Code or any of GLPL's connection procedures; or
- ii) refusing to include a term or condition that is required to give effect to the Code or any GLPL's connection procedures.

## **2.2 Duty to Negotiate**

- 2.2.1 Any dispute between the customer and GLPL referred to in section 2.1.1 in this procedure shall be referred to a designated senior representative of each of the Parties for resolution on an informal basis as quickly as possible.
- 2.2.2 The designated senior representatives of the Parties shall attempt in good faith to resolve the dispute within 30 days of the date on which the dispute was referred to them. The Parties may by mutual agreement extend such period.
- 2.2.3 If a dispute is settled by the designated senior representatives of the Parties, the Parties shall prepare and execute minutes setting forth the terms of the settlement. Such terms shall bind the Parties. The subject-matter of the dispute shall not thereafter be the subject of any civil or other proceeding, other than in relation to the enforcement of the terms of the settlement.
- 2.2.4 If a Party fails to comply with the terms of settlement referred to in section 2.2.3 in this procedure, the other Party may submit the matter to arbitration under section 2.5 and 2.6 in this procedure.
- 2.2.5 A copy of the minutes of settlement referred to in section 2.2.3 from which all Confidential Information has been expunged shall be made available to the public by the Transmitter.
- 2.2.6 If requested by the Board, a copy of the minutes of settlement, held in confidence, referred to in section 2.2.3 shall be made available to the Board by the Transmitter.
- 2.2.7 If requested by the Board, a copy of the minutes of settlement, held in confidence, referred to in section 2.6.9 or a copy of the decision of the arbitrator(s), held in confidence, shall be made available to the Board by the Transmitter.

## **2.3 Ontario Energy Board**

- 2.3.1 GLPL or the customer has the right to bring a dispute to the Ontario Energy Board for resolution, if it has not been resolved by the parties within 30 days using the procedure outlined in section 2.2 in this procedure.

## **2.4 Submission of Unresolved Disputes to Arbitration**

- 2.4.1 If the designated senior representatives of the Parties cannot resolve the dispute within the time period set out in section 2.2.2 in this procedure and neither party chooses to bring the dispute to the Ontario Energy Board as set out in section 2.3.1 in this procedure

or where sections 2.2.4 or 2.6.10 in this procedure apply, either party may submit the dispute to binding arbitration under sections 2.5 and 2.6 in this procedure.

If a party fails to comply with the terms of a settlement that has been recorded by the arbitrator(s) in the form of an award pursuant to section 36 of the Arbitration Act, the other party may make an application to the court to enforce the award.

If a party fails to comply with the terms of a settlement that has not been recorded by the arbitrator(s) in the form of an award pursuant to section 36 of the Arbitration Act, the other party may either submit the matter to arbitration or, if after 30 days the dispute is not resolved, to the Ontario Energy Board.

## **2.5 Selection of Arbitrator(s)**

2.5.1 The Parties shall use good faith efforts to appoint a single arbitrator for purposes of the arbitration of the dispute. If the Parties fail to agree upon a single arbitrator within ten business days of the dispute being submitted to binding arbitration as set out in section 2.4.1 in this procedure, each Party shall within five business days thereafter choose one arbitrator. The two arbitrators so chosen shall within twenty days select a third arbitrator.

2.5.2 Where a Party has failed to choose an arbitrator under section 2.5.1 in this procedure within the time allowed, the other Party may apply to a court to appoint a single arbitrator to resolve the dispute.

2.5.3 No person shall be appointed as an arbitrator unless that person:

- a) is independent of the Parties;
- b) has no current or past substantial business or financial relationship with either Party, except for prior arbitration; and
- c) is qualified by education or experience to resolve the dispute.

## **2.6 Arbitration Procedure**

2.6.1 The arbitrator(s) shall provide each of the Parties with an opportunity to be heard orally and/or in writing, as may be appropriate to the nature of the dispute.

2.6.2 The Arbitration Act, 1991 (Ontario) shall apply to an arbitration conducted under this procedure.

2.6.3 The arbitrator(s) shall make due provision for the adequate protection of confidential information that may be disclosed or may be required to be produced during the course of an arbitration in a manner consistent with the confidentiality obligations set out in the Code Appendix 1 section 21.

- 2.6.4 All proceedings relating to the arbitration of a dispute shall be conducted in private unless the Parties agree otherwise.
- 2.6.5 Unless the Parties otherwise agree, the arbitrator(s) shall render a decision within ninety days of the date of appointment of the last to be appointed arbitrator, and shall notify the Parties of the decision and of the reasons therefore.
- 2.6.6 The decision of the arbitrator(s) shall be final and binding on the Parties and may be enforced in accordance with the provisions of the Arbitration Act, 1991 (Ontario). The Party against which the decision is enforced shall bear all costs and expenses reasonably incurred by the other Party in enforcing the decision.
- 2.6.7 Subject to section 2.6.8 below, each Party shall be responsible for its own costs and expenses incurred in the arbitration of a dispute and for the costs and expenses of the arbitrator(s) if appointed to resolve the dispute.
- 2.6.8 The arbitrator(s) may, if the arbitrator(s) consider it just and reasonable to do so, make an award of costs against or in favour of a Party to the dispute. Such an award of costs may relate to either or both the costs and expenses of the arbitrator(s) and the costs and expenses of the Parties to the dispute.
- 2.6.9 If a dispute is settled by the Parties during the course of an arbitration, the Parties shall prepare and execute minutes setting forth the terms of the settlement. Such terms shall bind the Parties, and either Party may request that the arbitrator(s) record the settlement in the form of an award under section 36 of the Arbitration Act, 1991 (Ontario). The subject-matter of the dispute shall not thereafter be the subject of any civil or other proceeding, other than in relation to the enforcement of the terms of the settlement.
- 2.6.10 If a Party fails to comply with the terms of settlement referred to in section 2.6.9 above, the other Party may submit the matter to arbitration under sections 2.5 and 2.6 in this procedure if the settlement has not been recorded in the form of an award under section 36 of the Arbitration Act, 1991 (Ontario).
- 2.6.11 A copy of the minutes of settlement referred to in section 2.6.9 from which all Confidential Information has been expunged shall be made available to the public by the Transmitter.
- 2.6.12 A copy of the decision of the arbitrator(s) from which all Confidential Information has been expunged shall be made available to the public by the Transmitter.

## **Appendix 1**

### **Schedule of Charges and Fees**

**GREAT LAKES POWER LIMITED**  
**SCHEDULE OF CHARGES & FEES**

| <b>ACTIVITY</b>   | <b>CHARGES &amp; FEES</b> |
|---|---------------------------|
| 1 Feasibility Study   | Actual Costs              |
| 2 SIA & CIA Studies   | Actual Costs              |
| 3 Connection Estimates (when a Customer pays)                               | Actual Costs              |
| 4 Inspection, Testing and Commissioning associated with Customer Facilities | Actual Costs              |

**NOTE:**

For activities 1, 2 and 3 the Connection Applicant will sign a CCP Agreement with GLPL. For activity 4 the Connection Applicant will sign a CCRA with GLPL.

GLPL does not have many customers applying for a new or modified connection to GLPL's transmission system; therefore, all new or modified connections will be based on actual costs for each connection.

Actual Costs: The activities set out in this schedule will be primarily conducted by third-party consultants whose costs will be passed through to the customer without mark-up by GLPL. GLPL's contribution to the activities set out in this schedule will be based on time and materials incremental to costs currently included in GLPL's revenue requirement.

## **Appendix 2**

### **Summary of Process Timelines**



**SUMMARY OF PROCESS TIMELINES**

|  | <b>Time Line</b>  | <b>Trigger</b>  |
|--|---|---|
| Step 1 – Connection Application  | 10 business days or as agreed to by GLPL and the Connection Applicant   | From receipt of Customer Connection Application   |
| Step 2 – SIA and CIA Studies   | 60 to 75 Business Days<br><i>(for CIA Study)</i>  | From the Date the Connection Applicant requests in writing for GLP to undertake the CIA                               |
| Step 3 – Connection Estimates<br><i>(Includes Economic Evaluation Procedure and Contestability Procedure for Load Customers)</i> | 45 Business Days<br><i>(Provided the Load Customer provides the requested financial information within 15 business days.)</i> | From the later Date of a Signed Connection Estimate Agreement (CEA) or receipt of the Electrical Design Documentation |
| Step 4 – Connection and Cost Recovery  | 30 Business Days Minimum<br><i>(Excluding any requirements for an EA, OEB Approval, ESA or other Regulatory Approvals)</i>    | From Connection Applicant Request for Connection in writing   |
| Step 5 –Design & Build   | Project Specific – To Be Negotiated With Connection Applicant.  | As per CCRA   |
| Step 6 – Commissioning   | 30 Business Days  | From Connection Applicants submission of the Commissioning Plan   |

## **Appendix 3**

### **Transmission Plans**

## **GREAT LAKES POWER LIMITED**

### **TRANSMISSION PLANS**

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. (Code section 6.3.6)

GLPL will develop and maintain plans to meet load growth and maintain reliability and integrity of its transmission system. The plans will cover the next three year period from the current year when the plans are prepared. The plans will be reviewed from time to time as required and updated before the end of the current year. The plans will include information regarding each listed transmission project including the expected completion date and references to the information used at the time to determine the need for the project.

GLPL will not require a customer to make a capital contribution, for pertinent projects listed in the plan, except for advancement costs. Information pertinent to a Load Connection Applicant who makes a request to GLPL about its plans will be provided to the Load Connection Applicant in a manner that is consistent with the confidentiality requirements of GLPL's transmission licence and the Code.